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## Further work at Kilise Tepe, 2007–2011: refining the Bronze to Iron Age transition

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### Abstract

The excavations at Kilise Tepe in the 1990s inevitably left a range of research questions unanswered, and our second spell of work at the site from 2007 to 2011 sought to address some of these, relating to the later second and early first millennia. This article gathers the architectural and stratigraphic results of the renewed excavations, presenting the fresh information about the layout and character of the Late Bronze Age North-West Building and the initial phases of the Stele Building which succeeded it, including probable symbolic practices, and describing the complex stratigraphic sequence in the Central Strip sounding which covers the lapse of time from the 12th down to the seventh century. There follow short reports on the analyses of the botanical and faunal materials recovered, a summary of the results from the relevant radiocarbon dating samples and separate studies addressing issues resulting from the continuing study of the ceramics from the different contexts. Taken together, a complex picture emerges of changes in settlement layout, architectural traditions, use of external space, artefact production and subsistence strategies during the centuries which separate the Level III Late Bronze Age settlement from the latest Iron Age occupation around 700 BC.

### Özet

Kilise Tepe’de 1990’larda yapılan kazılar kaçınılmaz olarak ardında cevaplanamamış bir takım araştırma soruları bırakmıştı, 2007’den 2011’e kadar yerleşimde yaptığımız çalışmalar sayesinde ikinci binyılın sonları ve birinci binyılın başlarına ilişkin bazı sorulara cevap arayışında bulunulmuştur. Bu makale, yeni kazılardan elde edilen mimari ve stratigrafik sonuçları sunmaktadır. Olası sembolik uygulamalar da dahil olmak üzere, Geç Tunç Çağı Kuzey-Batı Yapısı ve onu izleyen Stel Yapısı’nın ilk evrelerinin düzen ve karakteri hakkında yeni bilgiler sunulmakta ve Merkez Şeridi’nin 12. yüzyıldan 7. yüzyıla kadar bir süreyi kapsayan karmaşık stratigrafisi açıklanmaktadır. Bulunan bitki ve hayvan kalıntıları üzerinde yapılan analizler hakkında kısa raporlar, ilgili radyokarbon tarihlleme örnekleri ve farklı kontekslerden gelen seramikler üzerinde sürdürülen çalışmaların sonuçlarının bir özeti sunulmaktadır. Birlikte ele alındığında, Geç Tunç Çağı 3. seviye yerleşimini, M.Ö. 700 yıllarına ait son Demir Çağı yerleşiminden ayıran yüzyıllar boyunca, yerleşim düzeninde, mimari geleneklerde, dış mekan kullanımı, eser üretimi ve yaşam stratejilerindeki değişikliklerden oluşan karmaşık bir tablo ortaya çıkmaktadır.

Our first programme of excavations at Kilise Tepe in the 1990s recovered evidence for settlement at the site over a succession of periods from the Early Bronze Age to the Byzantine. This gave us snapshots of the architecture and artefactual repertoire of the site at different

times, and while these were similar to the material record of other settlements, indicating that Kilise Tepe participated culturally with neighbouring regions (fig. 1), the similarities were not always with the same part of the region, and this of course raised the question of why the



Fig. 1. Map to show location of Kilise Tepe and relevant sites.

cultural orientation varied at different times, sometimes to the north and the interior, sometimes southwards to the Mediterranean. At the same time the plant and animal remains indicated some changes to subsistence practices at the site, and there was a need to see if and how they may correlate with the material changes. Explanations may be sought in terms of trade and exchange, along political lines or even population movements, and all of these may affect or be affected by the degree of continuity of occupation and cultural affiliation. It should also be recognised that such explanations may be better and certainly are differently focused at times when there is historical documentation to back them up.

Thus a second spell of excavation was undertaken from 2007 to 2011 in order to address these unanswered research questions. Although this project also worked in Byzantine and Middle to Early Bronze Age levels, which will be the subject of separate reports by Mark P.C. Jackson and Tefvik Emre Şerifoğlu respectively, the present article is directed solely to our work in the Late Bronze Age and Iron Age, and concerns two main areas of the site, the northwestern corner, including principally the North-West Building and the Stele Building which succeeded it, and the Central Strip which is effectively a 35m by 5m trench from west to east just south of the foundations of the Byzantine church (see fig. 2).<sup>1</sup> The following

account of the excavations sets the scene with a summary of the work undertaken during this second stage of the project, starting with the earliest Late Bronze Age material provided for us by the North-West Building and concluding with our latest Iron Age context represented by the massive storage pit at the west end of the Central Strip, formerly described as a ‘ditch’.

### Summary of excavations

*The architecture and stratigraphy* (table 1)

In the pre-Classical period Kilise Tepe must have witnessed significant changes during the centuries surrounding the transition from the end of the Bronze Age to the Iron Age. The events which saw the collapse of the Hattusa dynasty and the abandonment of Ugarit, around 1190 BC by conventional dating, ushered in what is for those wishing to construct political history still effectively a ‘Dark Age’, since, by contrast with the rich documentary evidence for historical events and political organisation

<sup>1</sup> Architectural plans and section by Carlo Colantoni, photos by Bob Miller; unattributed sections of text have been drafted by Nicholas Postgate. Preliminary notices of individual excavation seasons can be found in *Kazı Sonuçları Toplantısı* 30.3 (2007 season); 31.1 (2008 season); 32.3 (2009 season); 34.3 (2011 season).

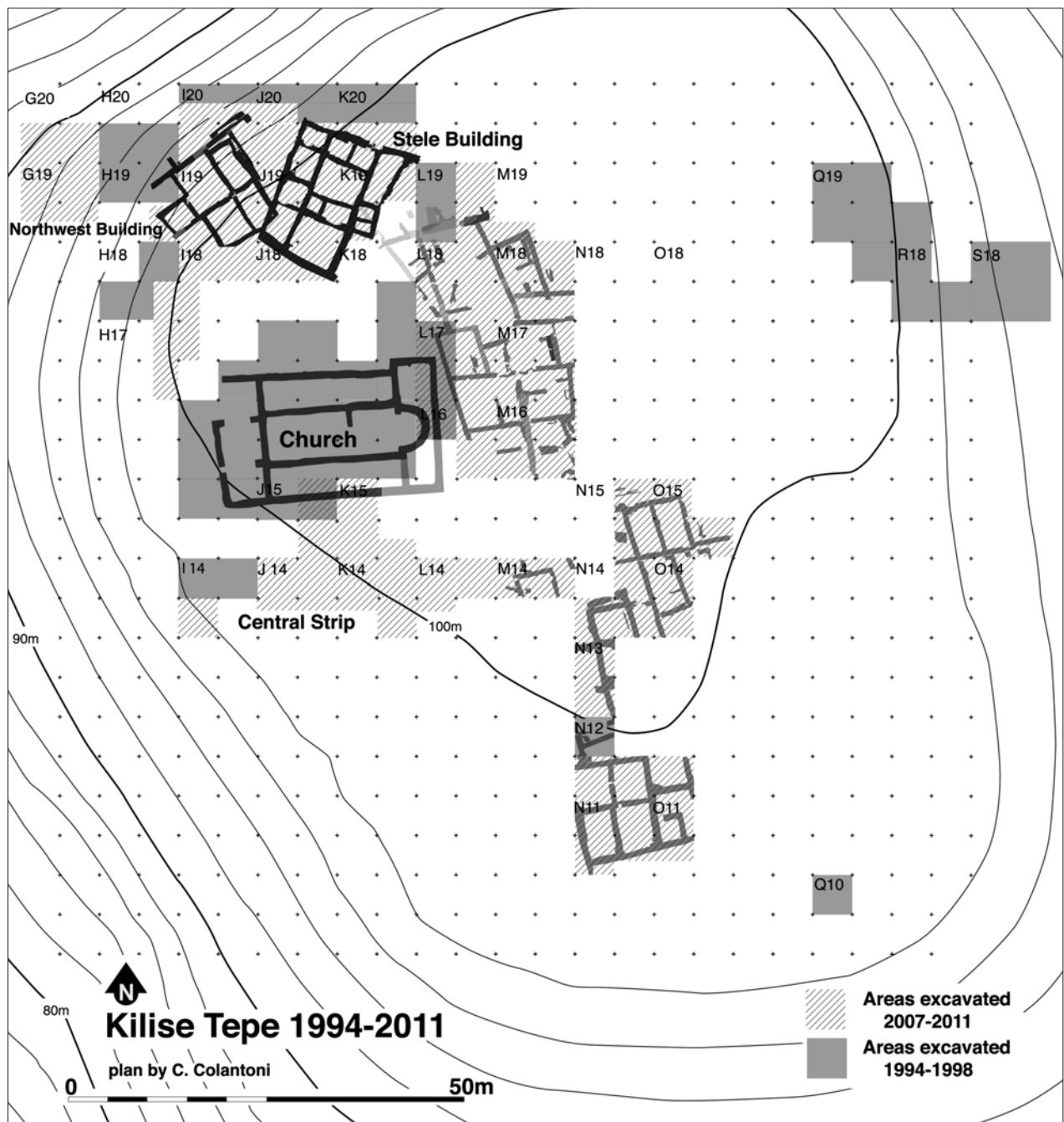


Fig. 2. Plan of the mound 1994–2011.

from the Late Bronze Age, there is virtually none for several centuries. The Stele Building at Kilise Tepe was still in use at this time, and our first period of work there had given interesting results but left questions unanswered. In particular the stratigraphic situation in the northwestern corner of the site meant that we did not have a secure sequence of levels after the IId phase of the building, which might reflect what was happening at the site during the first centuries of the Iron Age. Hence in 2007 we reopened our excavations, giving particular attention to the Stele Building and its Late Bronze Age

predecessor, and to a sounding at the centre of the mound (the Central Strip) where we (rightly) believed the stratigraphy to be less damaged and less compressed, so as to recover a better sequence from the early Iron Age. Here our specific objectives in this work are summarised first, according to the three principal areas investigated, and this is followed by a fairly detailed account of the excavated results in each area. Interim reports on environmental issues, including  $^{14}\text{C}$  dating, follow, and the article concludes with observations on aspects of the ceramic sequence.

Period	Date BC	Phases excavated							
		Northwestern corner				Central Strip			
		Level	NW B.	Stele B.	I18	Level	(see table 2)		
Byzantine and Hellenistic		I				1			
Iron Age	800–650	II			IIg–h	2	2k	Surface 1	
	IIf				2f				
	1150–800				IIe		2e	Surfaces 2–4	
				Surfaces 5a–e					
Terminal Late Bronze Age	1250–1150				IId	IId	3	Phases 6a–c	
				IIf	IIf	Phases 7–11			
Late Bronze Age	1350–1250			IIf.ii				Phases 12–15	
				IIf.i					
		IIf.a							
Late Bronze Age	1500–1350	III	IIIe						
			IIId						
			IIIf						
			IIIa–b						

Table 1. Late Bronze and Iron Age excavations 2007–2011, showing stratigraphic labelling in different areas. Dates to nearest half-century, revised in the light of section 2.4.

#### Level III: the North-West Building

Below the Stele Building courtyard in Level III there had been a building with large rooms, which might be seen as the functional predecessor of the Stele Building. It went through five consecutive architectural phases (IIIa–e), all associated with ‘Hittite’ ceramics, without any major disruption. We needed to get greater clarity about the nature of this building, by expanding the excavated plan and recovering stratified bio-archaeological and ceramic materials. Work beneath the main III d phase recovered valuable ceramics from the earlier III c building and shows that the layout of the complex was significantly changed by the III d reconstruction, whose limits we were able to define in three directions; the lucky recovery of an official stamp seal from the main reception room is welcome confirmation of our suspicion that this was the seat of the local administration under the Hittite empire. The ceramics recovered from this phase remain distinct from the reper-

toire associated with the Stele Building, though more by virtue of the absence of certain wares, and while they do include familiar standardised vessel types, in particular internal rim bowls, they show enough variation to constitute a local tradition and, in particular, they do not resemble the very late Late Bronze Age repertoire at Tarsus with its large numbers of shoddily-made bowls (named ‘drab ware’ by the Tarsus team). One very helpful discovery was a large assemblage of animal bones behind an oven in one of the rooms: this clearly illustrated dietary habits in the III d phase (see section 2.3.3).

The III d phase of the building was in due course taken down and a final phase erected. Because of subsequent interference, nothing of the III e structure survived over the main part of the building (Rooms 30, 31, 32 and 37): here the base of the IIa/b courtyard deposits contemporary with the newly erected Stele Building lay directly above III d masonry. It was only to the northeast, where a III e wall and

courtyard deposit overlay the IIId courtyard area, and to the southwest, where the foundations of a separate IIIE building remained beneath the IIa courtyard, that the remains of the final Level III phase were observed. Nevertheless, this IIIE phase was clearly a reconstruction of the better preserved IIId building, and the size of the complex combines with other features to suggest that this was more than a regular domestic residence, and that it was functionally in some sense a forerunner to the very different Stele Building.

#### *Level IIa–d: the Stele Building*

This building represents a new departure, with a completely different alignment and layout, approximately 18m by 14m, with rooms arranged round a central space. In the 1990s we had fully exposed the IIc phase of the building and its dual functions of storage and cultic activity seem well established, with the stele and altar in the central space and storage jars in some of the other rooms. Soundings below the floor had shown that this IIc phase was a refoundation of the building on very similar lines to its initial construction, but further work was needed to expose in detail the layout and occupation sequence of this original building. Our work in 2007–2009 completed this task.

It transpires that the overall layout with a central space was constant, but some of the longer rooms in the IIc phase corresponded to two smaller rooms in the earlier plan. Clear evidence was recovered for a gradual rise in some of the floor levels during the IIa/b phases, for the use of some rooms for storage and for symbolic foundation deposits within the fabric of the building. This therefore reinforces our interpretation of the Stele Building's dual function, while providing us with some well stratified samples for <sup>14</sup>C analysis which are valuable in confirming our suspicions that the original foundation had taken place well before events at the end of the Hittite empire, conventionally placed around 1190 BC.

After its destruction by fire, the IIc phase of the Stele Building was replaced by the IIId reconstruction: this was badly damaged by later intrusions and was itself burnt down. A few Mycenaean-style vessels caught up in the destruction give a date in the early 12th century, after the fall of the Hittite dynasty at Hattusa. Whether the building was again reconstructed is unknown because all higher remains were removed in the Hellenistic or Byzantine period, but some later Iron Age occupation survived to the southeast and southwest of the building itself where the external ground-level was lower. In Phase IIIf this included a couple of rudimentary kilns in I18 and I19, from one of which we recovered a mass of very homogeneous ceramics, in the style known in Cyprus as 'White-Painted IV' and 'Plain White IV', which petrographic analysis suggests were made on site. Current estimates for the date of this style hover around 700–650 BC. Work in I18

suggests that at this date this northwest area also housed textile and food production on a scale larger than required by a single household. Unfortunately, the stratification here is very compressed – about 50cm for 500 years – and to explore what went on at the site in the obscure half millennium before 650 we needed to look elsewhere, and our attention turned to the centre of the site.

#### *The Iron Age sounding in the Central Strip*

In 1995–1996 a sounding located south of the church foundations into Iron Age deposits had encountered no architecture for a depth of 1.5m, only an apparently open space into which large storage pits had been sunk. In 2007, assuming that some associated building could not be too far away, we decided to enlarge this sounding to the east, to tie the sequence into some architecture. Initially the architecture remained elusive. The results of work in 2007–2011 reveal four main stages in the formation of this part of the site. The latest pre-Classical occupation is represented by an open space (called by us Surface 1) which hosted three small ovens, two or more deep circular storage pits and one very much larger rectangular storage pit with a capacity of about 35 cubic metres. The ceramics indicate that this occupation is roughly contemporary with Phase IIIf in the northwestern corner, so around 700–650 BC. Contemporary with this, or perhaps slightly later, was an even larger storage facility in I14 and J14 which was called a 'ditch' when excavated in the 1990s, but now was revealed to be an exceptionally large rectangular pit (P11/11). Surface 1 was preceded by an intermediate (third) stage lasting some centuries, in which the area of K14 was an open space, broken by an occasional small pit but few other features; this space stretched for over 20m from west to east and at least 6m from north to south. Within this stage at least three consecutive surfaces are recognisable, separated by bands of packing. The lowest of these surfaces, Surface 4, is from <sup>14</sup>C evidence no earlier than the 11th century, and may well be later, while a single sample for Surface 3 hints at a ninth-century date. From these levels come local ceramics, but also increasingly as time passes there are occasional imports or imitations of exotic wares, including Black-on-Red, Bichrome and White-Painted, bearing witness to the re-establishment of cultural relations with the Mediterranean region.

The preceding second stage is Phase 5 (comprising Surfaces 5a–e, see table 2 below), which is absent from our initial sounding in K14, and was only revealed by our work in J14 in 2011, where there was a succession of courtyard-like surfaces which have to be contemporary with the Level 2 (early) house excavated in I14 in the 1990s. This seems to be the earliest clear Iron Age stratum here, and it rests on a thick band of packing which sealed Level 3 in I14. Further east, and approximately contem-

porary with this Phase 6 packing, there was at one moment a double ring of postholes, appearing to belong to a structure some 8m in diameter (Phase 6c). Regrettably, the continuation of this ring eastwards, where we hoped to follow it, had been cut away by pits of different periods, so that we cannot say if it was really circular (and not, for instance, apsidal). The ceramics suggest that Phase 6 is approximately contemporary with the later phases of the Stele Building (IIc/d): it may not be coincidental that immediately above the destroyed eastern rooms of the IId building there was a surface with numerous postholes (Postgate, Thomas 2007: fig. 496).

Our excavations were taken down below Phase 6 only in the space to the west of the posthole ring. New excavation in J14 and K14 linked up with the work carried out in the 1990s in I14 where the rooms of the Level 3 house(s) had been backfilled to a depth of half a metre or more and the tops of the walls were sealed by the Phase 6 packing. On the east side of I14 both the walls and the packing had been completely removed by the large later storage pit (P11/11), but beyond this to the east the relatively well-preserved architecture of this phase continued as far as a solid stone wall still standing over 1m high. To the east of this wall, in K14, the nature of the deposits changed radically. At times, on the north side of the sounding was the southwest corner of a house, separated by a short distance from the northeast corner of a room tacked on subsequently to the main house wall. The space between these buildings was an open area with a tight sequence of occupation surfaces, interrupted by storage pits (one yielding several grindstones) and fire installations, and, in the earliest phase reached, by a patch of stone paving. Realising that the architectural layout could not justify referring to this as a 'courtyard', we were led to compare other open areas adjacent to buildings and recognise that, even if unroofed, such spaces, as is the case today in our local village, may have been as crucial a part of a domestic complex as any room or enclosed court. To acknowledge this it seems helpful to refer to such spaces as 'forecourts' (although one cannot of course rule out the possibility that they were rather unenclosed 'backyards').

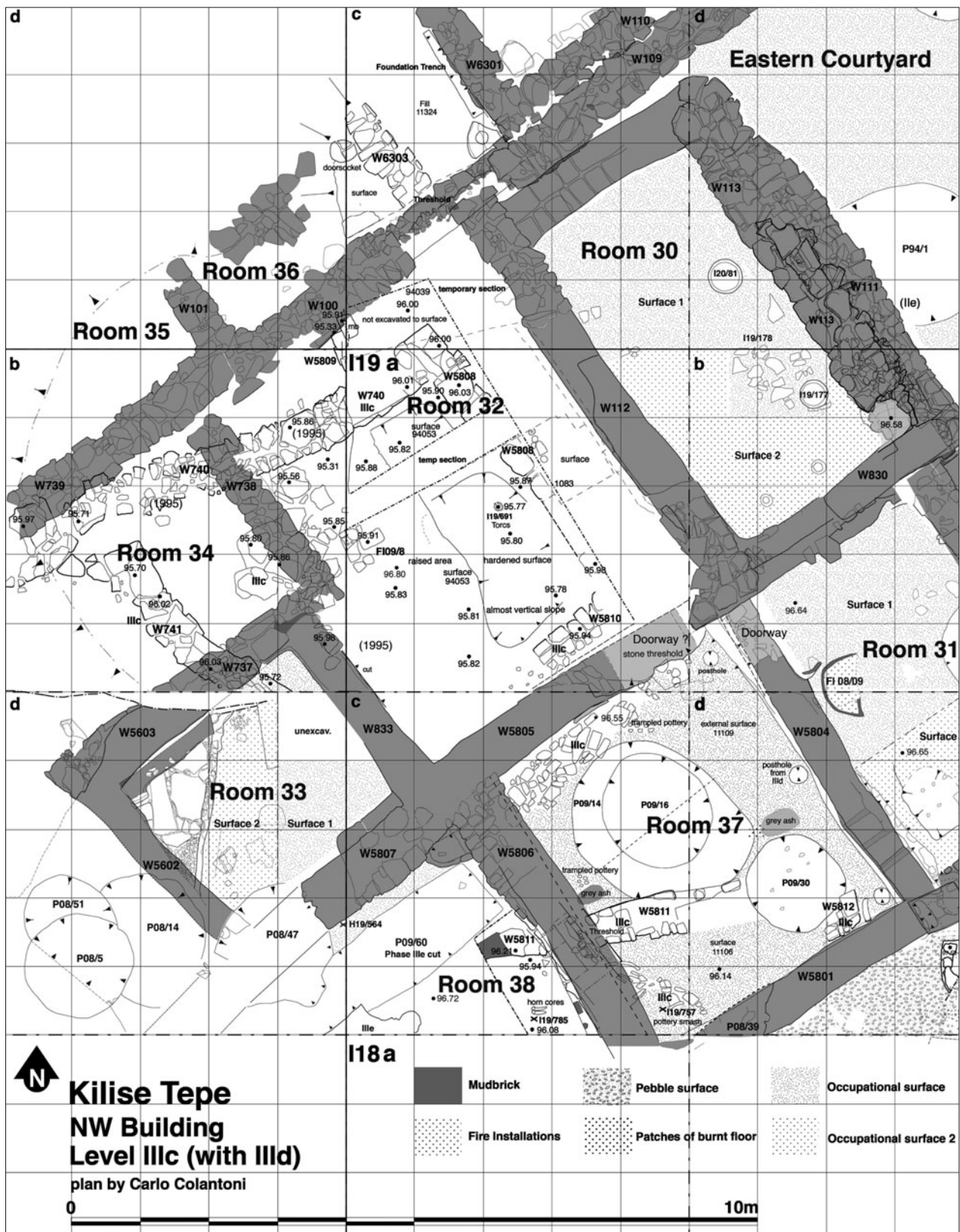
In any case, it is clear that with Phase 7 the Level 3 housing at the west side of the tepe, and the associated forecourt area, was abandoned and an entirely fresh layout adopted. The ceramics from the lowest level reached (Phase 14) seem to be equivalent to the Level III pottery at the northwestern corner, with no sign of the Level II painted jar style, so that with the Phase 6 packing layer there was a major shift in the use of space at about the time of Level IId in the Stele Building, i.e. the early 12th century. The ceramic sequence from here and the associated <sup>14</sup>C dates currently available are compatible with this interpretation, though more confirmation from both classes of evidence would be very welcome.

## 1. The excavations in detail

### 1.1. The North-West Building

The open space which consistently lay to the west of the Stele Building during its occupation seems to have been created at the same time as the building itself. Its lowest surface rested in places directly on the masonry of a large Level III structure which is now referred to as the North-West Building. During excavations in the 1990s we distinguished five architectural phases labelled Level IIIa–e, which all yielded Late Bronze Age ceramics with no significant changes from one phase to the next we could detect. This is reminiscent of the situation at Boğazköy, and recent reassessments of the development and dating of 'Hittite' ceramics, stemming from the work of the German team there, mean that any evidence for the absolute chronology of this building would be extremely helpful.

*1.1.1. Level IIIc* (fig. 3). The earliest three phases, Level IIIa–c, were excavated solely in H19–20, and consisted only of stone foundations, cut down and built over in turn by a further phase. We did not get down to Phase IIIa and Phase IIIb in 2007–2011, but walls belonging to Level IIIc were exposed when we went below the floors of IIId Rooms 32 and 37–38. In each case they are stone foundations, with no visible surviving brick, and they are on completely different lines from the IIId plan. Below Room 37 just north of W5811 there was an area of smashed pottery, mostly from a single large jar and partly sealed beneath the foundation of Level IIId wall W5806. Under Room 32 the eastward extension of W740, first exposed in H19b, formed the northwest side of a room, with a small hearth against its east wall which ran parallel to the line of W112 in the subsequent IIId phase. From the packing layers between the end of Level IIIc and the Level IIId floors there was a fair quantity of characteristic Late Bronze Age pottery, including libation arm fragments and pieces of Red Lustrous Wheel-made ware (see section 3.2). Resting on the highest IIIc surface, which was marked by thin whitish plaster, we came across a pair of copper torcs (I19/691; fig. 4). It is hard to imagine that these would have found their way there by accident, and this may well be a symbolic deposit placed when one building was abandoned and a new one initiated. The practice of leaving some kind of token in a building being pensioned off in favour of a new construction goes back well into prehistory (see, for instance, Özdoğan, Özdoğan 1998: 591–92). Possibly comparable and contemporary is a pair of horn-cores (I19/785) on the highest IIIc surface below Room 38, beneath a thick layer of fill associated with the construction of the IIId west wall of Room 37 (shown on plan, fig. 3).



*Fig. 3. North-West Building, Level IIIc features below Rooms 32, 37 and 38.*



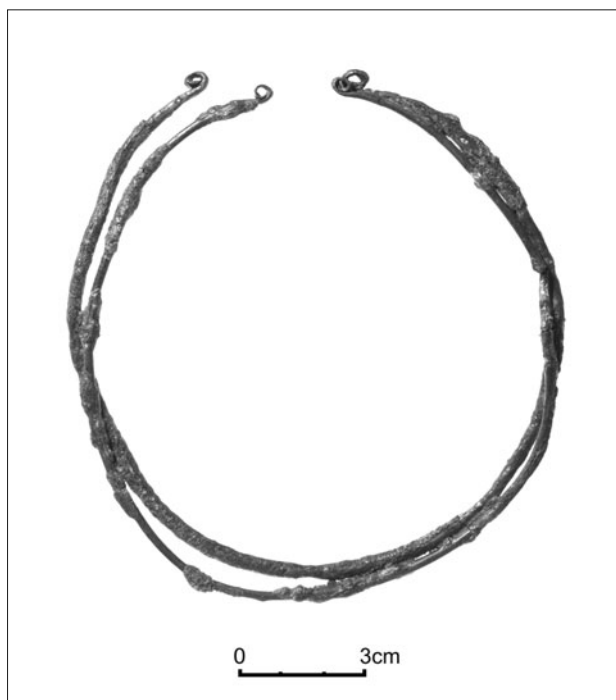


Fig. 4. Pair of copper torcs (119/691). Diameter 11.3–12cm.

*1.1.2. Level IIId.* The principal phase excavated in the 1990s was Level IIId, stretching as far east as J20 (Postgate, Thomas 2007: 832, fig. 491). The greatest area exposed was in the Eastern Courtyard, in which lay burnt debris from the destruction of the building, including tumbled mud-bricks from the walls. The only room investigated was Room 30, in which we identified two sub-phases of occupation, with storage vessels associated with each phase. Parallel to Room 30 to its west was the space Room 32: here several layers of plaster visible against the west face of W112 suggested that this was a relatively important interior room, but work here ceased above the highest surviving floor.

The work in 2007–2011 has expanded the plan of this building, so that we now know it was a complex of at least seven rooms, occupying a rectangular site about 13.5m (northwest to southeast) by 14.5m (northeast to southwest). It was therefore comparable in size to the Level II Stele Building, but further west and on a totally different alignment (fig. 5). Its eastern and southern limits are now clear: there are no walls east of Rooms 30 and 31, making W113 the eastern wall of the building, while an area of small cobblestones clearly signals an exterior surface in the space southeast of Room 37. The western extent of the building remains unknown because beyond Room 33 this level has fallen victim to the slope of the tepe. It is probably still correct to consider W100+109 as the northwestern side of the building: work in 2011 has clearly shown that Rooms 35, 36 and 39 must have existed during Phase IIId, but in an earlier sub-phase of IIId there

seems to have been a wide opening through the east end of W100 (implying that W112, and perhaps Room 30 in its entirety, belongs to the later phase) and the three walls enclosing Room 39 are structurally additions to W109.

Access to the complex and between rooms is not always obvious. There was a threshold and a step down from the cobbled space outside at the southeast end of Room 31, and from there a doorway led into Room 37 across the northwest end of W5804 (fig. 6). From the northeast corner of Room 37 there was probably also access to the southeast corner of Room 32, although a large Level II pit has removed the masonry at this point. At the northwest end of Room 32 there was probably still a doorway (albeit narrower) leading out into Room 36 (which may of course have been open space). No other openings were clearly identified in the wall foundations, so that we do not know how Rooms 30, 33, 34 and 38 could have been reached.

The three rooms on the east side of the plan seem to have been utilitarian: one of the jars in Room 30 had been coated in a thick plaster, perhaps to store cool water; a number of small copper items came from off the floors and intervening fill of this room, but it is hard to know if this is significant. To its south Room 31 had rough flooring at two different phases and two medium-sized hearths or ovens. FI08/09 (diameter ~0.9m) belonged with the later surface only and had been plastered continuously with vertical plaster curving off the interior of the threshold through to Room 37, while FI08/10 (1.05m by 0.6m) in the southeast corner was constructed on the lower of two surfaces but remained in use with the second. From Room 31 one had to step down into Room 37, which also had two consecutive occupation surfaces. The most conspicuous feature of this room was a regular circular depression visible in the centre of the lower floor when first exposed, which was clearly the result of the soil settling into the top of a large pit beneath the floor (P09/14; figs 5 and 6). In the southeast corner there was also a well-preserved oven (FI08/11; fig. 7). Its clay floor was laid over a bed of pebbles, and was blackened and hardened by fire and enclosed by a low plastered rim about 7cm high. This was probably a cooking oven, and from the narrow space between the back wall of the oven and the corner of the room we recovered over 1,000 pieces of animal bone, supporting the impression that this was domestic space (see section 2.3.3).

This oven was built across the top of a relatively small circular pit (P09/30) associated with the lower floor; since it was certainly dug and backfilled during the lifetime of the room we presume that it was intended for storage. The much larger pit at the centre of the room had in fact been recut on at least one occasion, but since it was sealed by the lower floor, it must have belonged to an earlier sub-phase

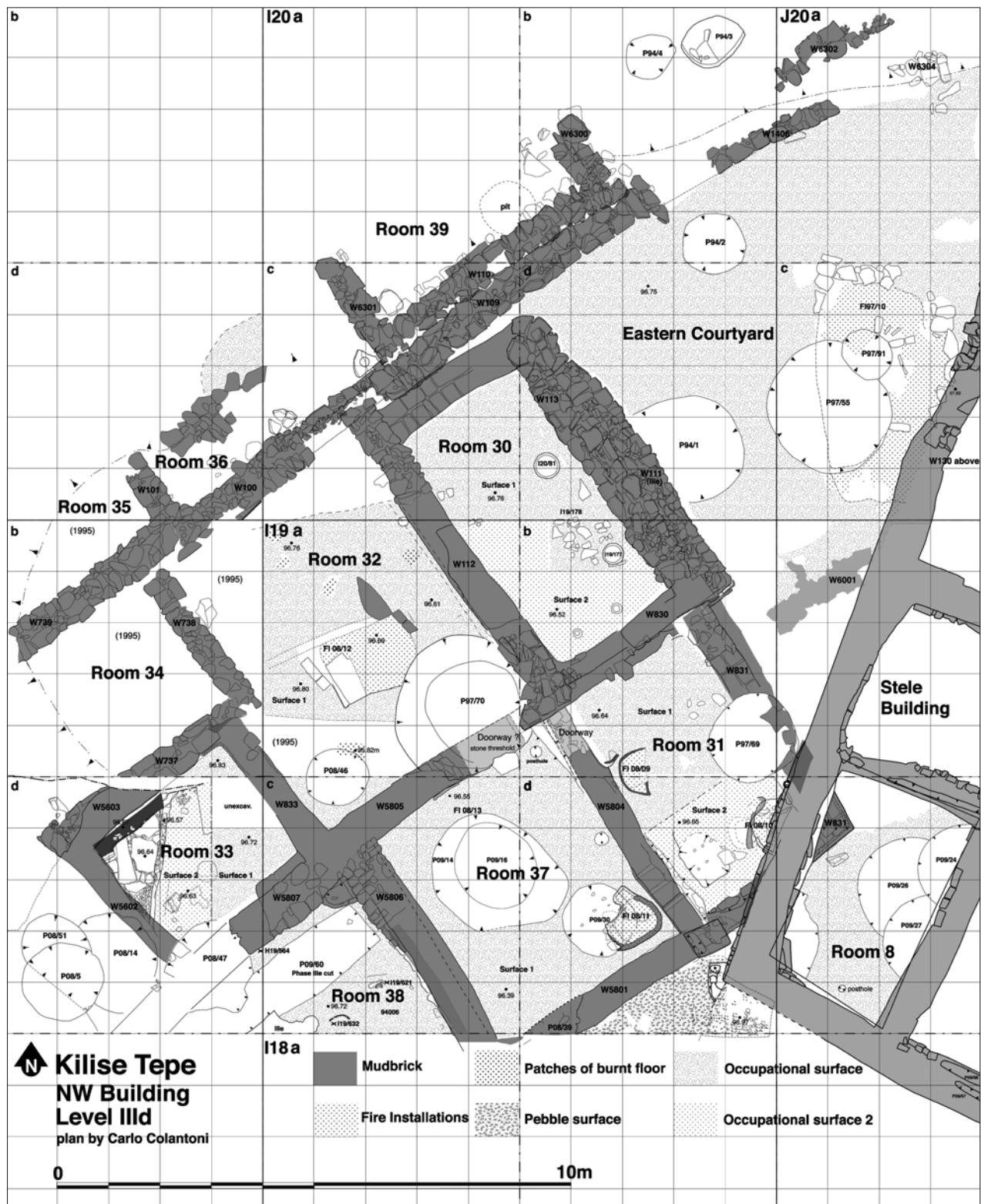


Fig. 5. North-West Building, Level IIIId.

of the IIIId building which has been completely removed here. That this is what happened is supported by the cross-section visible in Room 38 to the west, which shows that some of the stratified layers in that room were cut through

to accept the western face of the foundation stones of W5806. This must mean that the ground surface for Room 37 to the east was deliberately lowered in advance of the laying of W5806 and of its associated lower floor.



Fig. 6. North-West Building, Level IIIId from southeast, with Rooms 37 and 31 in foreground.



Fig. 7. Cross-section through FI08/11 showing construction (from northwest).

Only the north part of Room 38 itself is exposed and it is hard to interpret. Most of the northwest side of the IIIId room had been cut through by a longitudinal trench (P09/60) which was later packed with large stones and layers of clean hard clay. It seems likely that this was a later abortive foundation trench dating to about the time of the transition from IIIId to IIIe. To the north and south of this a rough IIIId surface did survive. Lying on it, next to the southeast face of W5807, was a small group of seven

ovoid astragali (H19/564) and beyond the trench to the south were the base of a jar (I19/632) and the white impression of a small basket, closely associated with a cluster of 13 frit beads (I19/621; fig. 8).

The face of the masonry of W5807 is noticeably more ragged on the Room 38 side than it is on its northwest face, suggesting that it was built with special attention to the interior of Room 33. This is in accord with other features of this room. It has clean yellowish wall plaster surviving in places and the back fill of the room was unusually clean yellow bricky material (by comparison with the other rooms of the building). A narrow plastered mud-brick bench was built in the east corner along W5807, and from within this a handful of very fragmentary frit beads was recovered (I19/794), inviting comparison with the beads incorporated in the plaster of Room 8 in the Level IIa Stele Building (see section 1.2.2). The room's highest floor was also better plastered than most, but beneath this was an earlier surface on which were some patches of burning and towards the west a patch of decayed reed – showing as parallel white stripes. The floor surface below this had been replastered at frequent intervals. In this phase a triangular area of paving had been inserted into the north corner of the room, its diagonal long side being bordered by a narrow pebbled-lined gutter which must have channelled liquid away from

the paved surface and through the foundation stones of W5603 in the northwest side of the room into Room 34 (fig. 9). Unfortunately, there is no evidence for a doorway in any of the four walls of this room, even though they stand some 80cm above the higher floor, and one has to assume it was entered either through the south corner where the walls have been removed by P08/47 or from above.

This leaves Room 32 to be described. When first identified, in 1997, this was marked out by a band of at least three lines of wall plaster (Postgate, Thomas 2007: 114) against the southwest face of W112, and it was clear that the IIIId floor lay beneath a layer of packing some 25–30cm deep, which also included some fallen brickwork. In the side of the large Level II pit P97/70 earlier floor surfaces could also be observed, and in fact the occupation sequence in this room was completely different from that of the adjoining Rooms 30, 31 and 37. On the latest floor, more or less dead centre, there was a roughly rectangular hearth emplacement (FI 08/12), and this suggests that this room was the equivalent of the Middle Bronze Age Level IVb Room 41 with its handsome circular hearth (Postgate, Thomas 2007: 848, fig. 828). Curiously, though, no hearth seems to have been present on the earlier floors in this space. These comprised a series of closely bunched clay plastered surfaces, overlying a distinctive band of packing which included dark greyish material including small stones and rests on the lowest surface associated with the foundations of the room (W833 and W5805). This material looked like a potential source of charred plant remains and a whole-earth sample was taken for flotation; alongside a carbonised olive stone and cereal grains it also yielded the ivory stamp seal (I19/541 = KLT 182; fig. 10).<sup>2</sup> This has been described in detail by D. Collon (Collon et al. 2010: 172–74). It is a high-quality product, best paralleled by an ivory seal attributed to the 13th century from Boğazköy (Oberstadt House 21; Boehmer, Güterbock 1987: 61, 73–74, Abb. 54), and may well have belonged to a high-ranking official.

Cut into the southwest corner of Room 32 is a neatly formed circular pit. This was not noticed in 1997, but cut through the higher IIIId floor surface. The deduction should perhaps be that it was dug from a level which lay above the immediate backfill of the room, but was removed by levelling activity preceding the Level II courtyard: in other words, it needs to be considered transitional between Level IIIId and Level II, possibly assigning it to Level IIIe. It is unfortunate that it cannot be pinned down more closely, because a good quantity of relatively large (and therefore

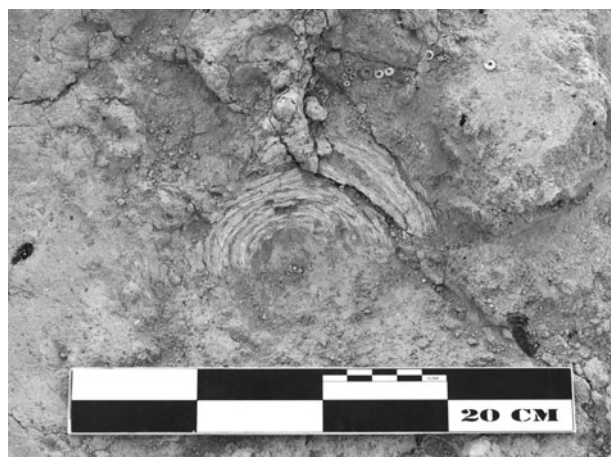


Fig. 8. Room 38 (Level IIIId): 13 frit beads (I19/621) in situ with basket impression.



Fig. 9. Room 33: stone-paved triangular platform and gutter in north corner.



Fig. 10. Ivory stamp seal (I19/541 = KLT 182). Height 1.7cm; diameter 1.25cm.

<sup>2</sup> Items which have been accessed in the Silifke Museum inventory (*Envanterlik*) carry a KLT number assigned at the end of each field season, which is given in this article.

recently broken) potsherds was recovered from it, including the body of a ‘tea-pot’, complete with spout and basket handle (I19/562; fig. 11), with the cross-hatched red-painted decoration familiar from the large square-rimmed jars, which we have classified as ‘Cilician Red-Painted’ ware.



Fig. 11. Red-painted jar with spout and basket handle (I19/562). Rim diameter ~10cm. Pinkish-brown fine-grained clay, apart from a few large chalk inclusions and smaller grey ones. Wheel-made, with roughened carinations. Plain rim, parts of a strap handle and of a spout immediately below it. Decorated overall in thin reddish-brown paint forming a large grid pattern extending from immediately below the rim and onto the remains of the handle and spout, and ending in a horizontal band level with the third carination (unit 84052).

*1.1.3. Level IIIe.* This was a total or partial rebuild of the IIId structure, and for the most part it has been entirely removed by later activity, with the base of the IIa Western Courtyard cutting down as far as the IIId walls. Level IIIe material is only found in the Eastern Courtyard, with the IIIe wall W113 built on top of the previous IIId east wall of Room 30, and towards the southwest there is the angle of a room corresponding approximately to the northwest and northeast walls of Room 38 but with no connected walls to the north or east (W5802 and W5803). On the south side of the Eastern Courtyard, against the outer face of W831, there was the foundation of a wall taking off in a northeasterly direction with a few artefacts on a surface to its north. What seems to have happened is that when the North-West Building was rebuilt after a serious fire, which left piles of debris in the Eastern Courtyard, the IIIe wall foundations were placed directly upon the existing stone foundations of the IIId phase, which stood noticeably higher than the contemporary ground surface in the Eastern Courtyard, so that, rather like the Stele Building in its later life, the structure was pedestalled. When the IIIe building was demolished to allow the construction of the Stele Building the ground was levelled right down to the top of Phase IIId over most of the building itself, but IIIe material survived either where it was lower down, i.e. in the Eastern Courtyard (and probably beneath most of the Stele Building's rooms), or where the clearance did not cut so deep, i.e. in the southwest where the foundations of W5802 and W5803 survived.

## 1.2. The Stele Building (Adam Stone)

Excavations in the 1990s revealed, on the northwest corner of the tepe, a large rectangular building (14m northwest to southeast by 18m northeast to southwest), which fell within Level II of the site phasing (Postgate, Thomas 2007: chapter 13). This building's history was punctuated by at least two destructions and rebuildings, and the IIc phase, which was the most substantial and contained the eponymous stele, was the focus of these excavations. The IIc phase had been destroyed by fire, and upon the floors of the scrappily-preserved IId rebuilding was Mycenaean LHIIIC pottery, dating to ca 1175–1150 BC. This indicated that the final form of the Stele Building belongs in the decades after the collapse of the Hittite empire, at the end of the Bronze Age.

The IIc Stele Building was a rectangular, multi-roomed structure with a large, square central space, associated structures against its east wall and an open, multi-purpose courtyard to the west. The excavation of Rooms 1, 4, 5, 7 and 8 of the main building demonstrated a focus upon storage – there were numerous in situ vessels and pot-emplacements, and the charred remains of food plants in several places. In the central Room 3, in which the painted stele was found, there was also a substantial raised hearth, and diagonally across the northeast corner a 0.8m-high plastered feature, described as an 'altar'. From the space behind this altar a mixed assemblage of astragali, shells and beads was retrieved. Similar, possibly symbolic, features were revealed elsewhere: a hoard of astragali under the floor of Room 7, a horn-core built into its southeast corner and a plastered and painted bench in Room 1 (for more comment on the non-utilitarian features of both the IIc and IIa/b phases of the building, see Postgate, Stone 2013). Although we lack much contemporary housing for comparison, the peculiar elements of the IIc Stele Building do suggest a public, large-scale non-domestic facility, and in and around the building four inscribed official seals were found, suggesting an administrative function.

Soundings below the IIc level demonstrated that there were earlier phases of the Stele Building. These phases were the focus of the new excavations begun in 2007 and it was hoped that excavation of these earlier phases would not only offer the full history of the building, but also shed further light on its nature and purpose, and enable the recovery of more artefactual, environmental and datable materials from well-controlled and stratified contexts. Importantly, the dating of the IId destruction to the middle of the 12th century meant that our excavation of the full stratigraphy of the Stele Building should be perfectly positioned to catch in action the poorly understood and poorly attested transformations of the Bronze Age to Iron Age transition. In this light, excavations to

the west of the Stele Building had uncovered the Level III North-West Building, revealing that between Level III and Level II there was a change in the architecture of the site, coinciding approximately with a transition in the ceramic tradition of Kilise Tepe. Could these changes in material culture be seen to reflect changes in the nature of the political order? Specifically, the Stele Building spans not only the final demise of the Hittite empire, around 1190 BC, but also the devolution of some of its powers to the semi-independent kingdom of Tarhuntassa, which would have controlled the region including Kilise Tepe for some time previous to that. The full sequence of the archaeology of the Stele Building would offer, therefore, a rare and interesting window on Late Bronze Age Anatolia.

The phasing followed in the rest of this report is as follows.<sup>3</sup>

- Ila Initial construction, packing and occupation of the Stele Building.
- Ila.i Subsequent occupation and alterations to the construction of the Ila Stele Building prior to and including the major packing event across the building which raised the level of the building roughly to that of the Ilc phase.
- Ila.ii Events which date to after the major packing event but before the Ilc construction and occupation (since the Ila.i and Ila.ii phases are not continuously present across the building, the assignment of some events to the same time may not be certain).
- Ilc The construction and occupation of the later building.

*1.2.1. Construction of the Ila Stele Building.* The general plan of the Ilc Stele Building followed the alignment of the Ila building (fig. 12). In most cases the walls of the earlier building were cut down to ca 0.7m, the building packed to this level and the stone foundations of the Ilc walls laid along the earlier lines, often resting on the mud-brick of the Ila walls. In a few places, the Ilc walls were positioned to make rooms slightly larger (for example the southwest wall of Room 7 and Room 5), while in other cases the mud-brick of the Ila walls was left standing and reused in Ilc (for example W622 at the south end of Room

4). Like Ilc, therefore, the general plan of the Ila Stele Building consisted of a series of rooms arranged around a central space – Room 3 – (for room dimensions and access, see fig. 12), with an associated open area to the west. It was not possible to excavate below the Ilc Eastern Building adjacent to the east wall of the Ilc Stele Building, so we do not know if there was an earlier structure here associated with the Ila building.

The Ila walls were formed of stone foundations topped by courses of mud-brick (figs 13 and 14). The foundations were two to four courses of roughly-worked limestone, although occasional lumps of local conglomerate were also used. The foundation stones varied in size, some massive examples were 0.6m long by 0.5m wide, but on average they were ca 0.4m long by 0.3m wide by 0.15m high. These were laid on bed (i.e. flat), commonly in two rows in a stretcher pattern, sometimes with a mud/rubble core, but without mortar. The Ila exterior wall foundations were bonded with one another, and where the mud-brick levels of these walls remained, these too were bonded – suggesting a unity of the entire structure from the earliest phase. The foundations of the interior walls mostly abutted (i.e. met without bonding) those of the exterior.

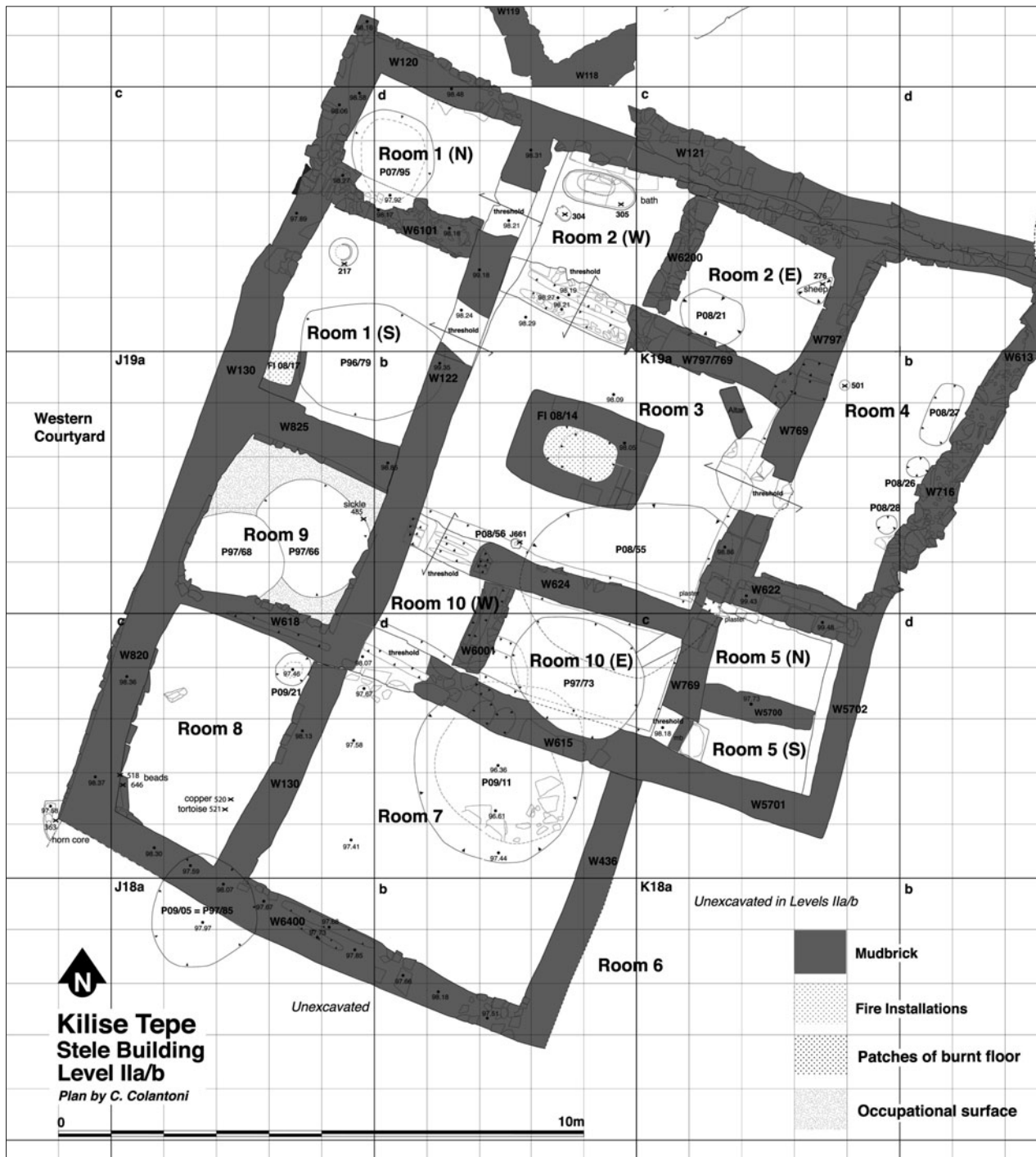
The mud-brick levels of the Ila building generally remained to a height of 0.3–0.6m, but along wall W622 they survived to a height of over 1m (fig. 14). The mud-bricks had often homogenised, leaving individual bricks indiscernible, but, where visible, they were laid on bed, in two rows running with the line of the wall (average dimensions: 0.5m long by 0.3m wide by 0.1m high) and in a rather rough stretcher pattern. In some places plaster remained on the internal walls of the building, and some was also preserved in one location on the exterior face of the southern outer wall.

The pre-existing topography of the construction area of the Ila Stele Building influenced the building's architecture. Curiously, the Ila construction was not carried out upon a level and even surface; there was no concerted effort to prepare the area, which must predominantly have consisted of IIIe deposits, into which several pits had been sunk, and not every wall had a foundation trench. The lack of concerted cross-site preparation is surprising: the construction of the Stele Building was a major and clearly important project, involving a great deal of effort and time, and, moreover, there is evidence in places for specific attention given to the preparation of some areas for the construction – but there is no obvious reason why this should have been done on such a piecemeal, ad hoc basis.

The pre-existing topography consisted of an uneven slope to the west and south, and the Ila Stele Building's foundations mostly followed these contours. Notably, the exterior walls W5702 and W121 slope down over 0.5m

<sup>3</sup> The numbers assigned to the Ilc walls of the Stele Building have been retained in figure 12. Where differentiation is needed, the walls are described by their phase, for example the Ila phase of W121. It should be noted that walls which were given separate numbers in the Ilc building have been shown to have been continuous in the Ila phase. Where such continuity was recognised, either the lowest wall number or, if possible, the 2007–2011 wall number has been used in the text.





*Fig. 12. The Stele Building, Level IIa/b.*

from north to south and east to west respectively. Overall, there was a difference of almost 1m in height between the northeast and southwest corners of the building. However, the ad hoc peculiarities of the building's construction are emphasised when we consider that while in places the foundations were simply laid upon this pre-existing slope, in other locations groundworks were carried out. Specifically, the original ground surface at the north of what would be Room 7 was cut down by ca 0.3m for the foun-

dations of the room's northern wall, although where this wall extended to the east to form the southern boundary for Room 5 the ground surface was left unaltered and the wall constructed at the higher level. Other groundworks include those for the northern wall of Room 5; the sloping terrain across which this wall was to be built was levelled by an internal packing event.

The slope of the initial structure is clearly apparent along its northwestern side, where we excavated the

Western Courtyard and exposed the full depth of the foundations, which were based at ~97.3m at the southwest corner, but at ~97.7m at the northwest corner of the building. Towards the southern end, on the western side of Room 8, the lowest stones of the foundation had been laid in a very shallow scoop into the underlying levels, and both here and along the footing of the western end of this exterior wall a distinctive greenish clay had been packed along the outside edge of the lowest course and onto the ground surface. From this point up the occupation layers of the courtyard formed a deep succession of strictly horizontal surfaces. At an early stage in this sequence, but not at the very earliest, three stones were arranged to form a small enclosure round the outer corner of the stone foundation: it contained a different fill from the contemporary courtyard levels, and at the base, inside the enclosed space, lay an animal horn (J19/363). This cannot have been accidental, and may fairly be compared with the horn-core built into the southeast corner of the Phase IIc foundation (J18/393; location marked on fig. 12; Postgate, Thomas 2007: 132–33, fig. 123).

The underlying sloping topography was not solely an issue for the construction of the building; it also influenced its occupation levels. Notably the IIa floor surfaces of Room 8 were ca 0.7m lower than those of the rooms to the north due to the sloping terrain. This sloping topography is also reflected in the depth of the stone foundation of the northwest wall which is founded several courses deeper along the west side of Room 8. Interestingly, the area which was later to form Room 7 of the IIa building had been cut down so as to match the IIa surface of this room with the lower level of Room 8, creating a lower-lying range of rooms along the southwest side of the building. The lower occupation level shared by these two rooms

(which was replicated in the IIc building) and the absence of any IIb.i surfaces here must be contrasted with the rapid and substantial build up of material across the contemporary courtyard west of the IIa building (see above), an increase of ca 1.2m which must have resulted in the already lower south wing of the building becoming almost subterranean.

Considered together, the elements described above suggest a deliberate policy to construct and maintain the south wing of the building at a lower level, and, as a rather prosaic explanation, this arrangement might have provided a cooler environment for these lower rooms.

Not only did the general contours of the pre-existing topography influence the Stele Building's construction, but so did specific features of the underlying levels. In contrast to Level II, where the major building, that under discussion here, lay to the east with an open courtyard to its west, in Level III there was, below the Stele Building, a mostly open courtyard, with the principal building to its west. Notably, the features of this Level III courtyard had influenced the Stele Building's construction. Beneath Room 8 was the foundation of a particularly shoddy IIIe wall, W6002, which was not associated with any other IIIe architecture (fig. 15). This had not been completely removed, and, instead, the IIa foundations of W130 were raised by ca 0.3m to run over this feature and remained at this raised level to meet the higher ground surface to the north. Furthermore, a large IIIe pit, P08/55, had a significant impact upon the construction of walls W769 and W624, which were built across the fill of this pit. The drawbacks of building these walls over such a feature had been apparent to those who had built the IIa Stele Building, for where the walls ran over this pit, they were built within a foundation trench, not a common practice across the rest of the building.



*Fig. 13. Room 8 from south: IIc burnt floor (foreground) and IIa original floor (behind), showing IIc foundations resting on IIa mud-brick.*



*Fig. 14. Room 5 (W622) showing plastered IIa mud-brick superstructure, with higher bricks exposed and burned during reuse in IIc.*





Fig. 15. Stele Building, Level IIa/b from southwest, showing rooms in southern half (with IIIe walls exposed in Room 8) and slump in W615 where it overlies fill of P09/11.

1.2.2. *The interior of the IIa Stele Building.* While the general plan of the IIa building was much the same as the later IIc, the major difference between the IIa and IIc buildings was the original division of the spaces which later became the single Rooms 1, 2 and 10. In the IIa plan, these divisions are referred to as Room 1(N) and 1(S), Room 2(E) and 2(W), and Room 10(E) and 10(W). Moving clockwise around Room 3 from the northwest, there are, therefore, the following rooms of the IIa Stele Building: Room 1(S) and 1(N), Room 2(W) and 2(E), Room 4, Room 5, Room 10(E) and 10(W), and Room 9, with Rooms 7 and 8 forming a southern wing (the open space called Room 6 in the IIc building was not investigated at the level of IIa). In the case of Room 2, the dividing wall did not survive high enough to show if there was access between the spaces; in Room 10, however, there were remnants of mud-plastered beam slots across the stone foundations, which elsewhere in the building were indicative of thresholds.

The majority of the original IIa floors of these rooms were formed of the upper horizon of initial packing (see fig. 12 for levels), and in some rooms there were features associated with this earliest occupation surface. In Room 3, and associated with the earliest occupation surface, there was a central mud-brick hearth (FI08/14) and across the northeast of the room a trapezoidal free-standing structure formed of a row of half bricks (ca 0.34m by 0.14m by

0.14m). This was the IIa version of the feature previously identified as an altar (Postgate, Thomas 2007: 124–25). The sides and front of this feature had been repeatedly coated with plaster (up to 0.08m thick) and two astragali were found within this plaster. Subsequently, at the time of the IIc reconstruction, large wedges of plaster material were inserted between the altar's sides and the walls to the northeast and southeast, and the altar and walls were plastered continuously. The enigmas of this northeastern corner extend to the junction of W796 and W769, where a vertical rectangular 'box' was cut into the wall, within which a large wooden beam had stood upright. This feature appears to be associated with another box-like feature slightly to the north, also cut into W769. Here, there were two parallel beams running east to west, and the internal plastering clearly demonstrates that these beams had not extended across Room 4, but, perhaps, formed the foundations for an upright feature within the wall. It is uncertain whether these were original IIa/b features or the result of IIc alterations to the fabric. Square slots dating to IIc were also cut into the midpoint of the north and south walls of Room 3 (Postgate, Thomas 2007: 126), but were not present in the IIa phase.

In the southeast of the room, at the junction of W769 and W624, the mud-bricks were laid so as to leave a narrow vertical opening, 22cm wide, between Rooms 3 and 5, reaching from the IIa floor to the full remaining



Fig. 16. Vertical slot in wall between Rooms 3 and 5, from west.

height of the mud-brick (fig. 16). There were the remains of some internal plastering of this channel, including a possible internal divide across it, and there were traces of plastering across the face of the channel suggesting that the channel may not have been left open to the rooms. Poor preservation prevents any certainty, but it may have been that the bottoms of these once separate channels were open, perhaps as some form of chimney or ventilation. No fire installations or other features, however, were associated with the corner of either room, and if Room 3 was an unroofed space a chimney or ventilation seems unlikely. The function of this channel, therefore, remains enigmatic.

Moving clockwise from the northwest through the rooms surrounding the central Room 3, we turn to Room 1(S) where a large storage jar with a vertical strap handle on its lower body was sunk into the IIa floor (J20/217; fig. 17). Only fragments of the initial surface remained in Room 1(N), which was disturbed by erosion and later pitting, but during IIb.ii at least this space had been given over to a large circular storage pit, with a stone lining keyed into the north face of the dividing wall between Rooms 1(N) and 1(S). While the initial surface of Room 2(E) and 2(W) was devoid of associated features, a small pit, P08/23, had been cut into the pre-existing ground-surface below the initial packing of Room 2(E). This pit contained most of the skeleton of a 20–24-month-old sheep. The skeleton was disarticulated and showed butchery marks on some of the bones (K20/276; figs 18 and 19), suggesting some kind of symbolic deposit contemporary with the IIa construction (although  $^{14}\text{C}$  dating of one of the bones would suggest that it belongs later in the building's history; see section 2.4.2). In Room 4 the IIa surface was cut for a pot-emplacement and the jar base was still in situ (K19/501), while along the east side of the room there were three more shallow pits, possibly also for storage jars. No features were associated with the



Fig. 17. Room 1(S), Level IIa: exposing base of storage jar J20/217.



Fig. 18. Room 2(E): bones of young sheep K20/276 in situ.



Fig. 19. Sheep skeleton K20/276 as reassembled by Peter Popkin.

Ila floor of Room 5, or of Room 10(E) and 10(W), but the initial packing of Room 10(E) included two frit beads (J19/613, J19/635) like those from Room 8 (see below).

The Ila floor of Room 7 differed from those described so far. Here the initial surface was formed of the upper horizon of a 1–2cm band of purposefully laid clay, but no features were associated with this earliest phase. The Ila phase of Room 8, however, had a number of peculiarities. First, the top of a stone which had been placed standing vertically on the construction surface of the building protruded through the initial surface in the west of the room. Additionally, there were several patches of burning on the floor, a grinding stone (J19/680) had been set into the northeast corner and, in the south, a complete tortoise shell (J19/521) was embedded in the floor, with just its top showing (fig. 20). Just 6cm to its north, also lying flat in the floor, without any sign of a haft, was a copper implement of unusual shape (J19/520; fig. 21); this may have been laid there when the room was finally backfilled in advance of the IIc reconstruction. In the southwest of the room, a collection of 163 very small (~2.5mm diameter) frit beads (J19/518, J19/646), in varying shades of white, light blue and grey, had been purposefully included in the wall and floor plaster (fig. 22). Room 9's initial Ila surface was without associated features.



Fig. 20. Room 8, Level Ila: copper implement (J19/520) and tortoise shell (J19/521) embedded in floor.



Fig. 21. Copper implement (J19/520 = KLT 166). 11.0cm by 14.3cm; thickness 0.6cm; weight 170.8gr.

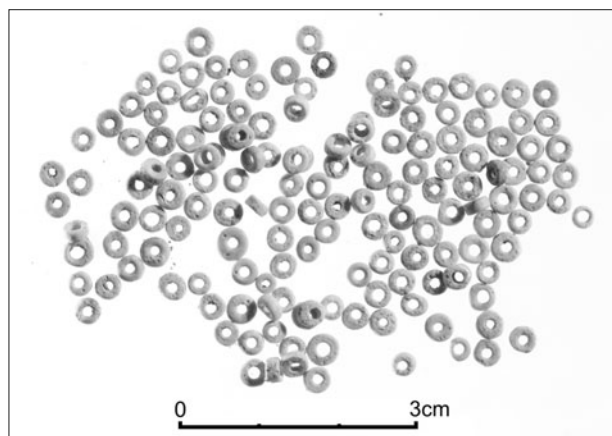


Fig. 22. Room 8, Level Ila: some of the 163 frit beads from wall and floor plaster in the southwest corner (J19/518 = KLT 152).

*1.2.3. The IIb.i occupation of and alterations to the Ila Stele Building.* As described in the introduction to this section, the IIb.i phase represents the subsequent occupation and alterations to the original Ila Stele Building. In this phase, Room 3 remained much the same, but several occupation deposits and surfaces were present across the room, and these respected the initial central hearth and altar. The final IIb.i surface was at +98.18–98.32m. Room 1(S) and 1(N) had a similar build up of IIb.i surfaces, the final surfaces of these rooms were at +98.35m and +98.25m respectively.

The divided spaces that formed Room 2(E) and 2(W), and Room 10(E) and 10(W) shared a common feature in the I Ib.i phase. In both cases the western of each pair of rooms, notably that with access to Room 3, had a succession of I Ib.i occupation deposits and surfaces, while both eastern rooms had been purposefully kept clean, with the single I Ia surface in use throughout what was the I Ib.i phase. In Room 2(W) the accretion of deposits and surfaces was accompanied by the introduction of two new features. On the penultimate I Ib.i surface a mud-brick or pisé platform was built against the northern wall and a large ceramic ‘tub’ (J20/305; fig. 23) was placed against this feature. Likewise, Room 10(W) demonstrated a substantial deposition of material and a consequent rise in floor level. In Room 10(E), however, there were no I Ib.i surfaces or occupation material, but a poorly-constructed mud-brick/pisé wall, W6000, was built upon the I Ia surface. This wall ran diagonally southwest across Room 10(E), but later pitting of this area means that interpretation is very difficult. The final I Ib.i surface in Room 2(W) was at +98.09m and in Room 10(W) at +98.15m. No distinct I Ib.i surfaces or features were found for Rooms 4, 5, 7 and 8.

While access between the rooms of the I Ia Stele Building is shown on the plan (fig. 12), there were I Ib.i alterations to these thresholds. Access between Room 1(S) and Room 3 was at first a ca 1m break in the mud-brick of W122, but soon after the initial construction access on the side of Room 1(S) had been purposefully narrowed by ca 0.2m of pisé material constructed against the threshold’s southern side, clearly restricting access. The access between Room 2(W) and Room 3 was originally formed of a ca 2m break in the mud-brick at the western end of W769, with two plastered horizontal beam-slots on top of the foundation stones across this break. The build up of material in Room 2(W), however, was such that the I Ib.i surfaces of this room eventually ran over the threshold and were then continuous with those of Room 3.

The build-up of material in Room 10(W) also affected the access between this room and Room 3. In I Ia, access between these rooms was formed of a ca 1.25m break in the mud-brick at the western end of W624, and across this break were three pisé-constructed beam-slots, with at either end a rectangular pisé surround, perhaps for door jambs. Upon the first I Ib.i floor of Room 3 was a small (0.2m diameter, 0.1m high) stone with a central depression (J19/661), possibly acting as a door-socket for this earliest threshold. However, with the dramatic rise in level of Room 10(W), in comparison with the relatively stable level of Room 3, the threshold between the rooms had to be raised to halt the spill of material into Room 3. This was achieved by the addition of a row of large (ca 0.2m wide by 0.3m long by 0.2m high) stones across the threshold, which also served as a step between the rooms.



Fig. 23. Room 2(W), Level I Ib: pilgrim flask (J20/304) and ‘tub’ (J20/305) in situ, looking north. J20/305: 61.0cm by 68.0cm by 24.0cm. Grey, heavily grit-tempered ware fired to reddish-brown on the external and internal surfaces, and wet-smoothed. The oblong shape is slightly irregular, partly due to pressure of the soil which has distorted the vessel. One end is more everted than the other. It has two handles at each end, but one has been placed centrally instead of to one side, like the others (unit 81803).

1.2.4. *The packing of the I Ia/I Ib.i Stele Building and Phase I Ib.ii.* Prior to the cutting down and packing of the I Ia/I Ib.i building the majority of the rooms were cleared, although some internal features, such as the pots in Room 1(S) and Room 4, the large ‘tub’ in Room 2(W) and the peculiar features of Room 8, were left in situ and packed around. Possibly associated with the ‘closing’ of the I Ia/I Ib.i building was J19/485, a copper sickle or curved knife placed on the latest I Ib.i surface of Room 9. In addition, a complete lentoid flask of coarse reddish ware (J20/304) was left near the ‘tub’ on the latest I Ib.i surface of Room 2(W) (fig. 24).



Fig. 24. Pilgrim flask (J20/304). Height 31.0cm; maximum diameter ~26.5cm; maximum thickness 14.5cm; capacity just under 3 litres. Fine brick-red clay with no visible temper; exterior slipped and polished in darker and lighter roughly vertical streaks, but not a proper burnish. Two small roughly-pierced lugs on the shoulder and a slightly crooked handle just below the neck on the domed side (unit 81803).

The packing of the building occurred uniformly and over a short period. The packing is homogeneous and formed of broken mud-brick and a rather sterile grey-yellow clay. The only feature associated with this packing event is a pisé ramp in the southwest of Room 3, which may have offered access across the cut-down W122. While the packing was completed rapidly, there is some indication of a hiatus between the packing and the IIC construction, with this intermediary phase termed IIB.ii. The upper horizon of the packing of what would be the IIC Room 1 formed what is termed a IIB.ii surface, and in the southwest corner, associated with this surface, was a pebble-based hearth with mud-brick surround (FI08/17). This feature was later sealed by ca 0.2m of additional packing in preparation for the IIC walls. To the north, this packing and the north wall of the IIA Stele Building were cut by the southeast corner (W118, W119) of a structure located north of the Stele Building (Postgate, Thomas 2007: fig. 493). The intrusion of these walls into the Stele Building's space took place after the packing of the IIA/IIB.i building, but the occupation of this later structure must have come to an end before the IIC reconstruction because the walls had been cut down and were overlain by the IIC Stele Building walls. Similarly, the packing and northern wall of the IIA Room 2 had been cut into by the southern wall (W6201) of another building north of the Stele Building. This intrusion had also been temporary as it had been cut down and was overlain by the IIC walls. Finally, the upper horizon of the packing of Room 5 formed a IIB.ii surface and on top of this a shoddy mud-brick wall running east to west had been constructed across the room, and was in turn sealed by ca 0.15m of packing in preparation for IIC.

*1.2.5. Access to the Stele Building.* Access to the building as a whole was an unsolved mystery for the IIC Stele Building, and the IIA structure, likewise, has offered no definitive answer. The proposal (in Postgate, Thomas 2007: 137) that the IIC building was entered from Room 5 and through Room 10 remains uncertain and cannot be demonstrated for IIA; although there is a doorway in the east wall of Room 10, we found no sign of access to Room 5 from outside the building at this time. There is some possible evidence for access through the south wall of Room 7. The central section of W6400 was of a very poor pisé material, which is in contrast to the mud-brick seen to the east and west. Excavation of this pisé material revealed two ca 1.5m-long beam-slots cut into an initial course of mud-brick and running parallel with the line of the wall. The beams once within these beam-slots did not serve as an aid to bond the foundations and mud-brick, for they were cut into the initial course of mud-brick. Instead, these beam-slots may have been part of a threshold

through W6400, and similar beam-slots have been observed for other thresholds across the building. Clearly, this threshold, and any other associated threshold furniture, had been removed and the gap blocked, perhaps prior to the later packing and the IIC construction. Further evaluation of the possibility of an entrance to the building at this point, however, was not possible as the space south of this wall is beyond the excavation limits.

*1.2.6. Conclusions.* The IIA/IIB.i Stele Building was characterised by many of the same elements as the later IIC version – a large, multi-roomed structure, situated on a prominent position on the tepe, with a variety of possibly symbolic features and a heavy focus on storage. Furthermore, the general IIA layout and location were matched in IIC, and both the IIA and IIC constructions were associated with possibly ritualised elements. In IIA, a bovid horn-core had been set within a rough enclosure of stones at the southwest corner of the foundations, there was the small pit and animal burial below Room 2(E) and the frit beads found in the packing of Room 10(W) and in the plaster of Room 8. These actions can be compared with the copper objects left on the floors of Rooms 8 and 9, and with the hoard of astragali buried beneath the floor of the IIC version of Room 7. Similar features and installations abound – in both the earlier and later versions of Room 3 there were the ‘altar’ and central hearth (which was possibly also present in IId), and the ‘box’ features cut into the walls of both phases of the room. Moreover, storage and fixed-position containers were important in both buildings, Room 4 had numerous pot-emplacements in both IIA and IIC, and other storage elements were recognised across the phases, such as in Room 1(N) and 1(S) and Room 2(W) in IIA and Rooms 5, 7 and 10 in IIC.

There are, however, notable differences between the two buildings. Beyond the variation as to which rooms were used for storage, different rooms in each phase were the focus of the peculiar and ritualised elements, all of which were in addition to those of Room 3. In IIA Room 8 held the majority of these elements, while in IIC Room 1 had both the painted bench and associated in situ vessel. Primary among the architectural and occupation differences between the two phases are the original divided spaces of Room 1(N) and 1(S), Room 2(E) and 2(W), and Room 10(E) and 10(W). These divided spaces show a clearly different use of the building in IIA, and of particular interest is that the latter two symmetrically designed spaces lie directly to the north and south of Room 3. In both cases, it was the western room which had direct access to the central and possibly ritualised area of the building, and which showed the increase in occupation material and level. Such deposition is at variance to the general practice seen across the rest of the building and,

most importantly, is in direct contrast to the use of space on the other side of both dividing walls. There is, therefore, a very different consideration, or treatment, of these spaces, and a symmetry of use of both sets of rooms to the north and south of the architectural and cultic focus of the building. Although we are without contemporary domestic architecture for the Stele Building, we can suggest that the IIa version of the building, similar to the IIc phase, is most likely a public, large-scale non-domestic facility with a number of storage and symbolic elements. For the IIc phase, three seals found in contexts close to the building suggest the presence of administrative activity, while a fourth came securely stratified from the IIb packing of Room 3.

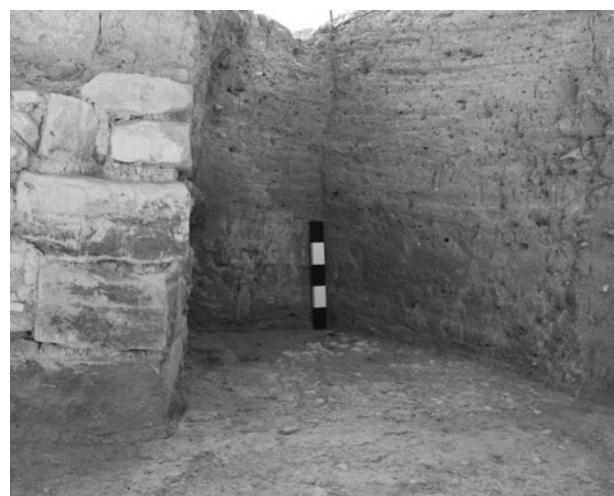
While the IIa building and its function are in many ways similar to that of IIc, the excavations into the building's earliest levels have provided us with a picture of the initial construction and structure, the longevity and continued use of this space and building plan, and the full history of the building's three distinct phases. Moreover, we now have a far greater artefactual and environmental assemblage from the earliest levels of the building, along with stratigraphically-certain samples and materials for an assessment of the chronology. Additionally, the excavations into the earliest phases of the Stele Building, the work on its construction and on the pre-existing features and topography of the earlier levels have enabled us to compare and contrast the Stele Building with the other architecture of the site. Notably, there are two distinct changes in the architecture between Level III and Level II. While the Stele Building was constructed to the east of its major associated open courtyard space, the major Level III structure lay to the west with its associated courtyard directly below the Level II Stele Building. There was, therefore, a clear flipping of the use of space. A further indication of the Level III–II opposition is apparent in the alignment of the Stele Building. The Level III architecture is aligned northwest to southeast (30° west of north), while the Stele Building's alignment is 20° east of north (so turned through 50° degrees to the east). Indeed, by its new alignment the Stele Building stands out as radically different not only to the Level III architecture but to other adjacent Level II architecture, for example that of the buildings and walls to the north, mentioned above, and on the southwest side of the courtyard.

While the Stele Building was occupied in Phase IIa, in IIb life obviously continued in the open space to the west, most vividly illustrated by the accumulation of closely packed strata built up against the southwest corner of the building (fig. 25). At different times there were hearths or ovens and occasionally a flimsy mud-brick structure in this space, not, however, the plethora of storage pits as observed later sunk into the IIc courtyard, or rather

forecourt. The very lowest stratum, which must have belonged with the IIa initial foundation of the building, was marked out by a thick layer of soft pinkish-white material towards the centre of the space. Closer to the building itself on the east side of the courtyard it was not present, probably having been sliced flat at a later date, while to the west it rises sharply to ride up over both the Level IIIe foundations (W5802 and W5803) and the Level IIId walls of Room 33 which remained standing higher than the rest of the North-West Building. The accumulation of deposits in the Western Courtyard gives at least a partial explanation for the wholesale reconstruction of the Stele Building in Phase IIc: since several of the rooms inside the building had been kept clean and the floors had not been raised, they had become sunken, in relation to both the adjacent rooms and the outside world.

### *1.3. The northwestern corner after the Stele Building (Caroline S. Steele)*

As a result of its IIc reconstruction, if not sooner, the Stele Building was effectively pedestalled, with internal floors at a higher level than the contemporary ground surface outside the building, at least to its south and west. The consequence of this was that while the latest incarnation of the Stele Building, of which anything remained for us to discover, was the IIc phase, to its south and west remnants of the phases called by us IIe and IIb had survived. While it is impossible to know if the Stele Building itself was rebuilt again in IIe, directly south of the IIc and IIId walls at least two rooms were built respecting their alignment (Postgate, Thomas 2007: fig. 497), while the Western Courtyard probably remained as an open space, at least in the earlier part of IIe when an



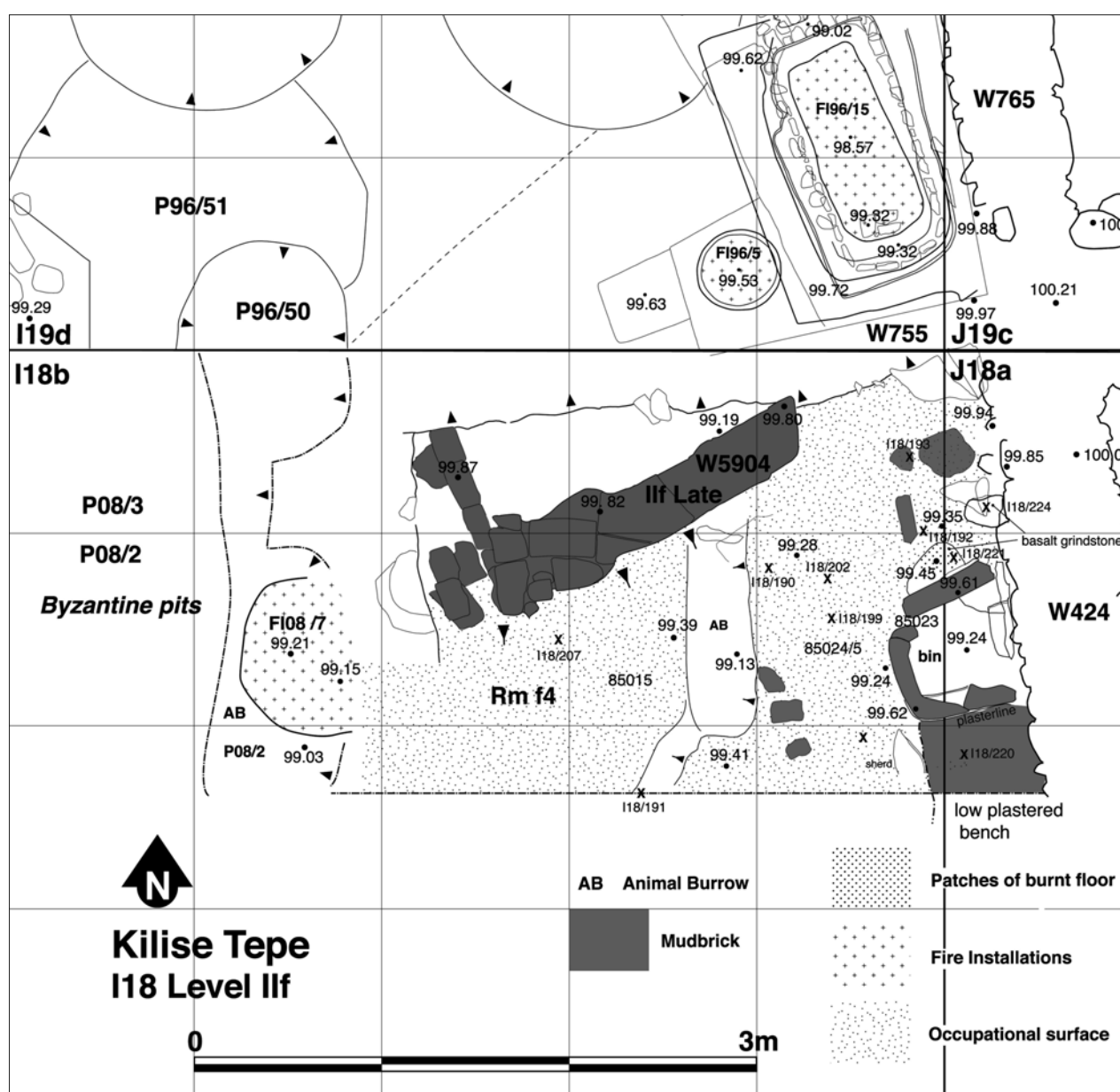
*Fig. 25. Closely-packed strata built up against the southwest corner of the IIa/b Stele Building. The scale rests on the Level IIId cobbled surface.*



occupation surface with burnt deposits was present here only 15–25cm above the IId courtyard surface. Phase II<sub>f</sub>, which certainly postdates the Stele Building, is represented most conspicuously by the two fire installations constructed at the southern side of II9. The western one (FI96/14) was remarkable for the very large volume of broken White-Painted pottery recovered from in and around it, which gives our best chronological indicator for this phase, and the eastern one (FI96/15) is structurally attached to stone foundations, including W424, which run on a totally different alignment from and overlies the walls of the Stele Building (Postgate, Thomas 2007: fig. 499).

In 2007 and 2008, in an attempt to learn more about activities in this part of the settlement, the northern half

of square I18 was opened up, and after removal of Level I walls (Byzantine and possibly Hellenistic), a strip a little over 2m wide (north to south) was taken down to the earliest I1e courtyard surface in the area east of FI96/14. This demonstrated that at this time the Western Courtyard open space, readily recognised by a spread of burnt material, continued here to the south without much change and without hearths or other features. Above this, associated with a similar surface of the intermediate I1e phase, were a length of wall, running northwest to southeast in line with W759 in I19c, and a large storage jar (I18/266) in the southeast corner of the area, partly in J18a beneath the foundation of the I1f wall W424. The only notable feature in the final I1e phase was a hearth (FI08/5) from



*Fig. 26. I18 Level II<sub>f</sub>: Room f4.*

which came a cooking pot (I18/214). Two loomweights also came from the associated fill. Given the restricted area uncovered and the proliferation of ancient pits and modern animal burrows, it is difficult to reconstruct any architectural context for these IIf surfaces, but they are likely to have been courtyard or other unroofed space throughout.

In Phase IIf the space was delimited on the eastern side by W424 (fig. 26). This substantial stone wall is the west wall of Room f3 in J18. Room f3, with its in situ storage jars and benches in the centre of the room and against the walls, looks more like part of a storage facility than an ordinary domestic house. The north wall of Room f3 (W764) was loosely constructed, unlike the solid masonry of W424; there is no access through W424 and it has previously been suggested (Postgate, Thomas 2007: 163) that this room might have been a later extension to a main building which lay under I18 with W424 as its eastern wall. This now seems less likely. When in I18b we excavated to the west of W424, the occupation phases associated with the wall seemed to belong to an untidy area, which has been assigned the label of Room f4. The stone footing of W424 initially had a plaster floor running up to it and in places up its western face. This was associated with a four-sided bin built from three bricks (30–38cm by 44cm by 10cm), placed vertically and plastered, forming the three outer sides with the fourth side formed by a single upright stone flush against W424. The bin was not a perfect square (its interior dimensions varied between 30cm and 40cm from north to south and from 45cm to 55cm east to west) and it still stood at least 30cm high (fig. 27).

On this surface, at some later stage, large potsherds, cobbles and fill were used to construct a low plastered bench against the wall to the south of the bin. It was ca 60cm wide and at least 20cm high with a dip in it before rising again to the face of the wall; at its northern end the free-standing bin was incorporated into it. At the western edge of the area excavated, cut through by animal activity, was a small round hearth (FI08/07). In due course the ground level was raised, and the bin and associated bench were buried under a thick layer of debris. From the occupation surface and distributed through the overlying debris was a concentration of artefacts, including seven grindstones (or fragments of grindstones), one stone and seven clay loomweights, a ring-based jar (I18/194) and parts of a tortoise skeleton with its shell (I18/202). South of the bin, close to W424, a deposit of grape pips lay among carbonised material on the surface (I18/220). The material filling the bin contained more pebbles than the surrounding fill, as well as one further grindstone and sherds from a globular White-Painted jar (I18/209), recovered from several units (85009, 85007, 85010, 85011).



*Fig. 27. I18, Room f4: brick bin against the west face of W424.*

On top of this material was constructed the very damaged wall W5904 to the north of the bin. From its position and height, this was probably contemporary with and perhaps structurally connected to the wall face W755 noted south of the kiln FI96/15 (though the erosion of this area over a decade had obscured the relationship). W5904 itself was of mud-brick on a scrappy stone foundation; the bricks had been burnt a deep orange colour in places, as had a tumble of debris to its south. With the slight remnants available, we were unable to decide if the burning was the result of a destructive fire or because some part of the structure belonged to a fire installation, which would not be unexpected in this area. The brickwork of W5904 extends about 3m westwards from the northern end of W424, and there are traces at the western end of a single row of bricks making a northward return. This was not encountered further north in I19, but the informality of the masonry and the lack of any extension further west suggests that this was a ramshackle structure associated with industrial activities contemporary with kiln FI96/15. In among this burnt bricky debris there were two further grindstone fragments, four clay loomweights and three spindle whorls, as well as the sherds of a jar with a handle (I18/290).

Overall, it is likely that the whole area designated Room f4 should now be seen as an external, though possibly sheltered, space rather than an internal room, lying outside the western wall of a building (W424 with W765 to its north). To this extent it agrees with the disposition of open space and building at the time of the Stele Building, but there is no longer any way of knowing whether there was once a IIf structure erected on the site of the IIf–IId Stele Buildings. Although on the other side of W424, which means that precise contemporaneity cannot be guaranteed, it is clear that Room f3 was also a utilitarian space in IIf as shown by the architectural fittings



and the materials retrieved in and around them (Postgate, Thomas 2007: 163): several loomweights were found in Room f3, and a different craft activity may be reflected in the 103 specimens of freshwater mussel shells (not as stated seashells), which also came from this room (J18/181 from unit 2378), five of which showed traces of use wear (Debruyne 2010: 152, 155). An earlier group of 53 of these shells from the southern half of Room e5 (unit 2394, Phase IIe) also included five pieces which had been used as tools (Debruyne 2010: 155), tending to suggest a continuity of usage for this area in general.

The heavy damage inflicted on the area by porcupines prevented a coherent interpretation of some of the IIf features just south of the kiln FI96/14, so that we are unsure how the space called Room f4 was delimited on the west, but the kiln itself supplied clear evidence of pottery production (and FI96/15 located further east against W765 presumably served the same purpose). Taken all together, the evidence suggests that this whole area was a workspace, leaving traces of food preparation (to judge from the grindstones) and of the production of textiles (to judge from the numerous loomweights and a few spindle whorls) and pottery (which might account for the presence of the shell tools). Both the pottery in the kiln and the number and quality of the grindstones (as noted below) suggest the area was abruptly abandoned at the end of the IIf phase, for whatever reason.

#### 1.3.1. Note on the grindstones from I18 (David Heslop).

The presence of such a concentration of grinding implements in Room f4 (fig. 28) might hint at the use of the space as a grain-processing area. The adjacent bin, with a capacity of ca 0.1 cubic metre, if used for storing grain, would have held about 200kg of cereal. Such a vessel would not serve the settlement as a silo, but would provide quantities of cereal for use within the building. The querns themselves were of good quality. One local quern with very poor milling properties, I18/233, was a small fragment and could easily be residual in these layers, but the group contains two very fine lava querns, one good sandstone example and three igneous basalt grinders, all either complete or substantially so.

In terms of degree of wear, and discounting the possibly residual fragment, the group is unusual in showing very little evidence that the stones were discarded at the end, or approaching the end, of their useful life. Two saddle querns are moderately worn (I18/197 and I18/198) and the remainder less so. I18/199, for example, is a complete and very well-manufactured lava grinder, having no concavity on its flat grinding face. The group gives every impression of being a collection of stones in use until some dislocation or act of deliberate deposition resulted in their incorporation into the context as excavated.

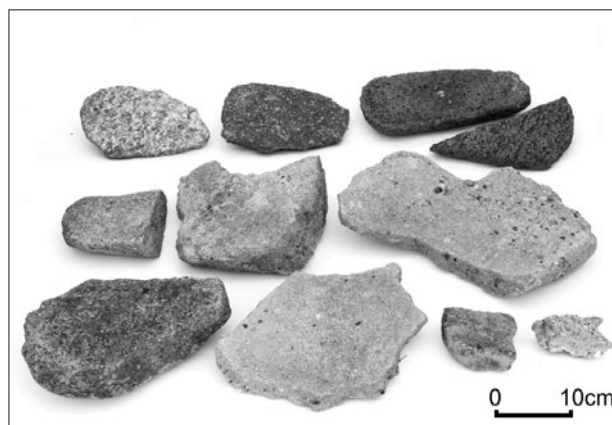


Fig. 28. Grindstones from I18, Room f4.

#### 1.4. The Central Strip (table 2; fig. 29)

During the excavations of the 1990s we opened a 5m-wide trench south of the foundations of the Byzantine basilica, stretching east for 50m from I14 at the western edge of the mound through J14, K14 and L14 as far as M14 and approximately bisecting the site from west to east. It was only in I14 and K14 that we reached pre-Classical levels. In I14 beneath a scrappy later Iron Age level (Level 2 late) we excavated part of an earlier Iron Age house, with rooms, and a courtyard area with a contemporary storage pit (Level 2 early; Postgate, Thomas 2007: 175–76). This rested on a layer of packing some 40cm deep, described as ‘a broad band of clean yellow charcoal-flecked clay’ (Postgate, Thomas 2007: 174), which had been cut by a number of intrusive pits before the construction of the Iron Age house. This packing layer lay across the surviving tops of solidly constructed Level 3 walls which were standing in the east to a height of up to 60cm (see fig. 37). Only a partial plan was present in I14, but in the northwestern corner of Room 91 two large storage jars remained sunk into the floor. The ceramic material associated with this level was patently different from the Iron Age material in Level 2 early, and we concluded that it ‘was broadly contemporary with Level III at the NW corner’. Our more recent work suggests that it may have been closer in time to Level IIa–d in the Stele Building, but it remains acceptable to refer to it as Late Bronze Age.

The stratigraphic connection of both these houses with the interior of the mound was entirely interrupted at the eastern side of I14 and the western side of J14 by a deep trench which we referred to as a ‘ditch’, since it was cut with parallel sides to a depth of over 3m. It was sealed by the Hellenistic level, but in J14 its eastern edge cut through the latest surviving Iron Age surface. Further excavation in J14 in 2011 revealed that it was not a linear feature, as implied by the word ditch, but an unusually

large rectangular pit (now renamed P11/11; fig. 30). Its northern and southern ends lay just outside the limits of I14b and J14a and hence were not seen by us in the 1990s, but they were exposed by a combination of erosion in intervening years and excavation in 2007–2011. It is clear from the nature of the striated deposits in its lower fill and its plastered eastern side that this was a massive storage facility, with a capacity in the region of 60 cubic metres, and the handful of Geometric sherds from the backfill indicate that it must represent the latest Iron Age occupation of the site, probably in the seventh century (following Coldstream in Postgate, Thomas 2007: 371; among other features of this material which look later than the regular Surface 1 material, Christina Bouthillier, personal communication, notes a number of stemmed vessels of a type not attested earlier).

*1.4.1. Surface 1.* To the east of P11/11, in J14 and K14, the latest surviving pre-Classical stratum was called by us Surface 1 (and given a phasing code 2f to indicate that it is approximately contemporary with the IIf phase in the northwestern corner, to which the ceramic kiln FI96/14 is assigned). This was a definite occupation surface, associated with two main features: a group of three small circular ovens (FI08/2, FI08/3, FI08/4 on the northern side of K14c and J14d) and in K14d another large storage pit, smaller than P11/11, but still with a capacity of approximately 35 cubic metres, and partially filled with distinctive multi-coloured striations (fig. 31).

Additionally, at the centre of K14 there was a storage pit, of the more usual cylindrical shape (P07/09), the western lip of which had clearly been plastered onto the floor surface just east of the ovens, so that we know that with a diameter

	<i>I14</i>	<i>J14</i>	<i>J14</i>	<i>K/L14</i>	<i>K/L14</i>	
<i>Level (1994–1998)</i>	<i>Architecture etc</i>	<i>Forecourt</i>	<i>Architecture etc</i>	<i>Open space?</i>	<i>Architecture etc</i>	
Level 2k	‘Ditch’ = P11/11					
Level 2 late	None	Surface 1	P11/07	Surface 1	FI08/2–4 P07/9, P07/15, P09/55	2f
		Surface 2		Surface 2	None	2e
		Surface 3		Surface 3		
		Surface 4	W1002	Surface 4		
Level 2 early	House in I14	Surface 5a	W1004 + W1005 FI11/4			
		Surface 5b				
		Surface 5c				
		Surface 5d				
		Surface 5e				
Terminal Level 3	Packing	Phase 6 P11/51	W1006 + W1007	Phase 6a	FI11/10	
				Phase 6b	W7502 + W7503	
				Phase 6c	Postholes	
Level 3	Houses in I14		W1009 + W1012 + W1014	Phase 7		
				Phase 8	W7509 + W96/47 W4300 + W4301 + W4111 + W4110 + W7504	
				Phase 9	FI96/16	
				Phase 10	W7505 + W96/48 + W96/47 + W7509	
				Phase 11		
				Phase 12	W7507 + W7510 P09/22, P09/19	
				Phase 13	P09/44, P09/45	
				Phase 14	Paving 92090	
				Phase 15		

*Table 2. Stratigraphic chart of the Central Strip sounding.*

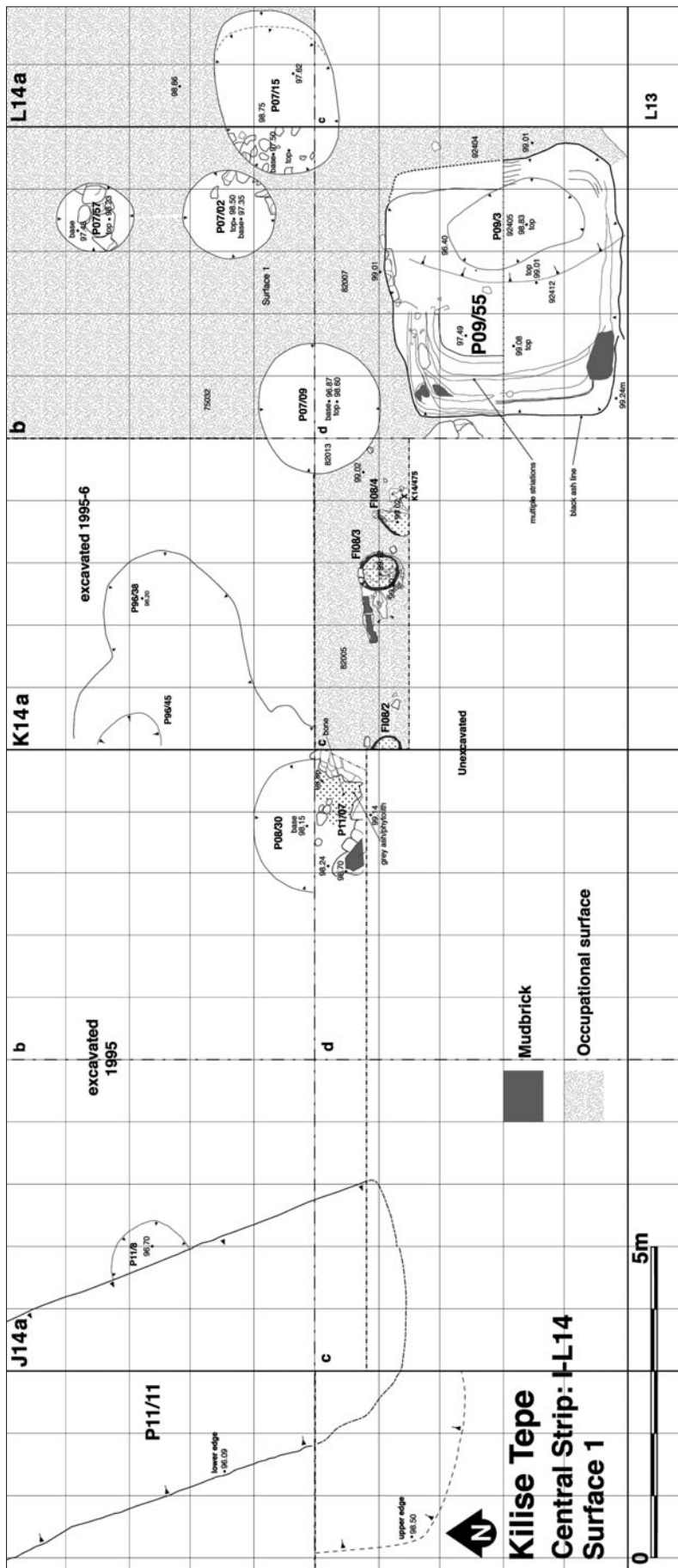
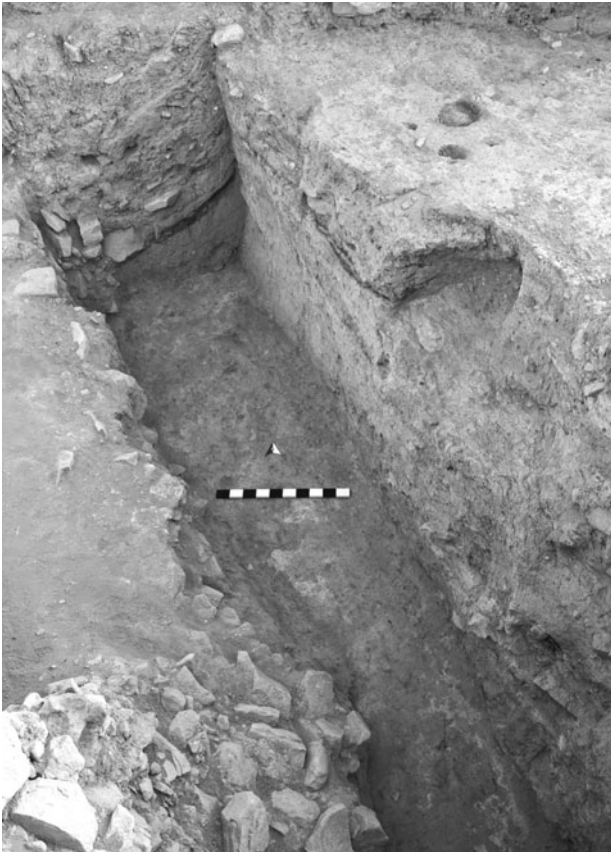


Fig. 29. Central Strip, Surface 1, showing major pits and fire installations.



*Fig. 30. Eastern half of P11/11 cleared to plastered base, with vertical eastern side and late backfill of large stones still in place at left. Looking northeast.*

filling phase, and it is interesting to note that a very similar phenomenon, with multi-coloured layers of soft organic material over the floors and rising up the sides, was observed in the even larger rectangular Late Bronze Age grain storage silos excavated in recent years at Boğazköy: on the floor plaster lay 1–10cm-thick layers of soft, fine, red-brown, yellowish and whitish material of organic origin, which also stretched up the pit walls (Seeher 2000: 273, Abb. 11). Iron Age storage pits at Kaman-Kalehöyük



*Fig. 31. P09/55: east to west cross-section through fill with Phase 6c and Phase 5 postholes in foreground. Looking southwest.*

of 2m and a full depth of 2m it must have had a capacity of about 12.5 cubic metres; cutting the southeast corner of K14b was a similar deep pit (P07/15). Finally, further to the west was another cylindrical pit (P11/07) distinguished by its stone lining and thick white phytolith deposits (fig. 32).

We did not encounter any significant architecture associated with Surface 1, although the presence of the ovens suggests that there must have been some housing nearby; south of the Central Strip this stratum is largely sliced away by the later Hellenistic activities and we have not followed it to the north where it lies beneath the Byzantine basilica. However, it is clear from the area we have exposed that at this date there was a wide open space, giving access to at least two major rectangular storage facilities (P11/11 and P09/55 12m away to the southeast) and several smaller circular storage pits. The circular pits, as usual, have layers of white powdery phytoliths as lining or between fine layers, some at least of which will have been straw linings (as shown by Madella in Postgate, Thomas 2007: 602–03). By contrast, the two larger rectangular pits still contained a distinctive succession of striated deposits which included fine orange bands. This must derive from the usage of the facility, rather than a back-



*Fig. 32. P11/07, showing southern side of stone lining with phytolith layer at base. Looking east.*

are discussed at length by A. Fairbairn and S. Omura (2005). In their Iron Age levels round pits with phytolith linings were frequent and they list ones with capacities ranging from 0.31 to 2.27 cubic metres. Larger pits called 'round structures' were only found 'in Hittite phase IIIb and were a short-lived intrusion into the normal pattern of household-scale crop storage using the small pits that were found in every other level' (Fairbairn, Omura 2005: 21).

Unfortunately we have no stratigraphic link between the two major pits at Kilise Tepe, but, as noted above, the ceramics suggest that P11/11 belonged to a slightly later Iron Age occupation phase which has been entirely removed elsewhere. However, whether or not they were partly contemporary, the evidence seems clear that at this time, in or around the seventh century BC, the inhabitants of Kilise Tepe felt the need to maintain considerable stocks of grain which exceeded the requirements of a normal domestic household. Estimates of nutritional requirements vary considerably, and have been discussed recently by J. Seeher (2000: 295); if we accept the round figure of 1 litre of barley for an adult male's daily requirement, when filled to capacity with 35,000 litres P09/55 could have held enough to support approximately 100 men for one year. Of course, people do not only eat barley, and, indeed, while flotation Sample 09/11 from the phytolith layers about half-way up the fill of the pit yielded 14 barley grains, Sample 09/6 from a pocket of carbonised seeds in the same context included three wheat grains and one grape pip as well as one barley grain (M.M. Hald, personal communication), but the order of magnitude clearly implies that this was not storage for a single family but for the community (without prejudging who may have owned or controlled it), and the same applies of course to P11/11. Looking at the historical context, at about this time the Assyrian kings had extended their campaigns into the Cilician plain (Que), and at times at least claimed control of Rough Cilicia (Hilakku). When we compare sites like Karatepe, Uzuncaburç and Meydanıkkale, the Assyrians' account of the conditions they encountered rings true, with local rulers prudently ensconced in the hills above the coast, and it seems reasonable to see Kilise Tepe as a similar phenomenon; the fortification wall at the top of the northeast slope could not be dated precisely, but it could as well belong with the later Iron Age as with the Hellenistic occupation of the site, and it may well be that Kilise Tepe in the seventh century served as a safe haven for the population of the locality.

*1.4.2. Surfaces 2–4.* When a sounding was made into K14a in 1995 and 1996 we were frustrated by the apparent absence of architecture and the proliferation of pits. It was only at the base of the sounding, at a depth of ~97.3m, that fragments of walls and fire installations were encountered, and these seemed to be in a Late Bronze Age context,

implying that there was nothing here from the Iron Age. When we reopened and expanded this sounding in the hope of locating a usable stratified sequence from the centuries separating the end of the Bronze Age from the seventh-century occupation, our previous experience was effectively replicated: although there were perhaps fewer pits, there was indeed a succession of layers without significant architecture. In K14b beneath Surface 1 there was a sterile layer of packing some 20+cm deep which can be followed in cross-section eastwards into L14 and westwards for over 10m into J14a because it was distinctively marked by vertical cracks. This overlies Surface 2 as identified in K14b at a height of approximately ~98.9m, which extends across the whole of K14b, into L14a and was presumably present in K14a (excavated in 1995–1996) where it would have been one of the upper layers in the stratigraphic band called Upper Level 2 (Postgate, Thomas 2007: 177, fig. 521; the direct connection with the northern side of K14a could not be made in the 1990s because of an overlying Hellenistic wall foundation).

Beneath was a layer of packing which overlies a much better defined surface – Surface 3. This was more or less horizontal, forming the upper face of a band of clean yellow clay, with brown-black discoloration. It was easily followed within K14b, and subsequently, because of its distinctive dark colour, could be identified in the cross-sections of both the northern and southern sides of the trench in K14 after the eroded edges of the 1990s sounding had been trimmed back. In cross-section it is possible to see that in places the dark-brown deposit was up to 5cm in depth. In any case, as with Surface 2, for as far as we could trace it, into K14 and westwards almost to the side of P11/11 (a total extent east to west of about 20m and north to south of 6.5m), Surface 3 has no associated architecture. In K14a it corresponds to the division observed between Upper Level 2 and Middle Level 2 at about 98.5m (Postgate, Thomas 2007: 177, not well indicated on fig. 521). Whether Surface 3 (or 4) could have been traced into I14 must remain uncertain, because the crucial connecting space was removed by P11/11, but we can at least say that we identified no coherent architecture in Level 2 late, only an oval hearth and a few postholes (Postgate, Thomas 2007: 175).

Almost exactly the same can be said about Surface 4, which lay about 30cm lower down beneath a layer of dense grey-brown packing. It too was a yellow clay band with a spread of black-brown material on its upper surface, perforated by small holes (2–4cm in diameter; fig. 33), and it extended over the same area. The only difference is that close to the eastern edge of P11/11 there was a stretch of stone wall-foundation running from northwest to southeast and supplying a western limit to the open space at this phase (W1000 and W96/61). Never-



Fig. 33. K14b: Surface 4 from the north, showing small perforations in surface.

theless the close similarity of Surface 4 to Surface 3 means that it certainly represents the same phenomenon; the question is only what this was. Our initial presumption that the dark coloration was the result of burning is contradicted by S. Taylor's micromorphological analysis, which indicates rather that it derives from decayed vegetation. These may then have been ground surfaces with thick vegetation which in each case were buried in a single event by a layer of fill, so that the colour we see is the result of slow rotting underground; conceivably the circular holes are plant roots.

Taken together, Surfaces 2, 3 and 4 all indicate that for some time before the not dissimilar Surface 1 this part of the mound was an open-air space, with no architecture and few other features such as fire installations. Even the occasional pits in K14b and L14a do not seem to have been normal grain storage pits with phytolith deposits. The successive black-brown surfaces were not marked by occupation debris and, as seen in cross-section, the filling material between Surfaces 4 and 3, and 3 and 2, is noticeably dull grey-brown, as opposed to the packing of the underlying Phases 6 and 7, which was hard clean yellowish material, probably deriving from dismantled mud-brick walls. Everything therefore indicates that for the duration of these three surfaces this section of the site was not occupied living space. That does not, of course, have to apply to the whole mound, and someone must have been present to apply the layers of packing separating the three surfaces.<sup>4</sup>

<sup>4</sup> In our databases these surfaces have been given the phasing 2e/2, 2e/3 and 2e/4 respectively. These do not correspond in detail to IIe phases in the northwestern corner, but collectively 2e/2–4 should fall within the time span associated with IIe, which was defined as 'any layers between IIId and IIIf' (Postgate, Thomas 2007: 152).

1.4.3. Phase 5 (Surfaces 5a–e). Under the packing beneath Surface 4 the character of the deposits changed abruptly, and directly east of the pit P11/11 we excavated a tightly bunched succession of dirty occupation layers which must have been external surfaces, although there was for most of the time a wall running across the space from northeast to southwest (W1004). The highest of these, Surface 5a, lay beneath a 40cm-deep layer of packing: at this stage there was a large number of postholes showing in the occupation surface especially south of the wall line (figs 34 and 35). On the west side of this space (J14a) was a large brick-walled circular oven (FI11/4), also associated with Surface 5a, which went through a succession of reincarnations, with an earlier raking pit to its eastern side later built over by a stretch of mud-brick walling (W1002), shielding it from the eastern part of the courtyard. The lowest surface in the sequence (5e) is perhaps not so much an occupation level as the upper limit of a further thick band of virtually sterile Phase 6 packing, separating it from the Level 3 architecture below.

This entire band of Phase 5 surfaces was not present in K14, because at the eastern side of J14 all five surfaces converged, sloping upwards to the east to respect a rise in the ground caused by the underlying Phase 6 brickwork of walls W1006 and W1007. To the east of these walls was an oven (FI11/10) associated with a distinctive thin band of multi-coloured striations visible in the northern baulk and assigned to Phase 6a. These slope relatively steeply up to the east, petering out about 4m into K14a, at which point they converge with the base of Surface 4. This means that, east of this point, the packing deposit on which Surface 4 was laid rests directly on the hard, clean, yellow material which is the upper limit of Phase 6a, and probably represents a layer of mud-brick dismantled from the walls of any building present in that phase.<sup>5</sup> It appears therefore that at or before the formation of the strictly horizontal Surface 4 this section of the mound was levelled, removing from the eastern area (in K14b and L14a) any earlier occupation deposits belonging to Phase 5, and so making it appear as though Surface 4 followed directly on Phase 6a, whereas from K14a westwards the sequence of Surface 5 external occupation deposits, lying lower beneath a layer of packing, remained untouched and survived until its western part was removed entirely by the late Iron Age storage pit P11/11.

<sup>5</sup> This is the place to note that in 2009 the layer now defined as Phase 6a was not separately defined, that Phase 6b was called Phase 5 and Phase 6c was called Phase 6; these have now all been renumbered as sub-phases of Phase 6, to allow for the external surfaces located in J14 to be included in the sequence as Phase 5 (for the previous numbering, see Collon et al. 2010: 164–65; Jackson, Postgate 2011: 435).

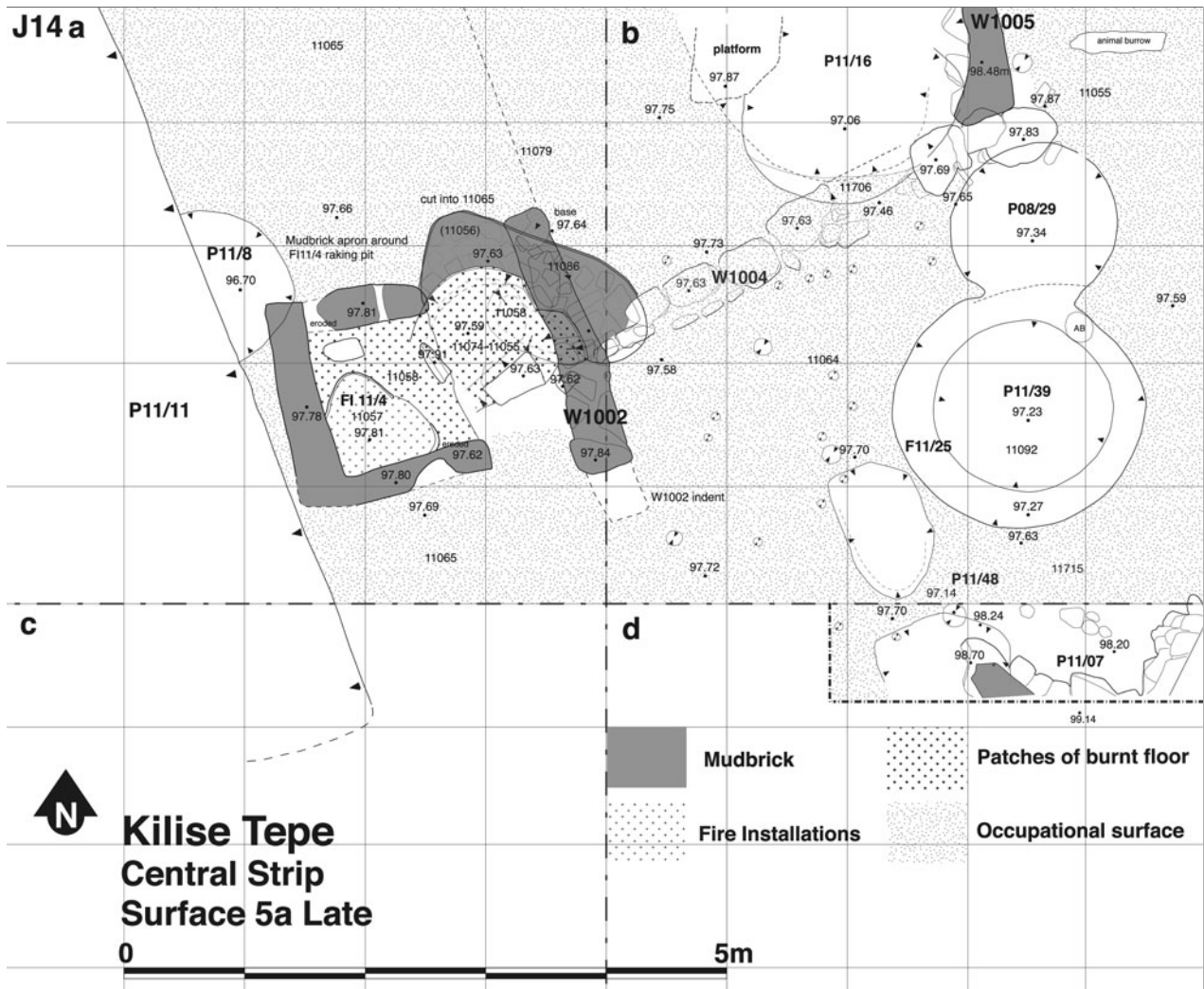


Fig. 34. Central Strip, Surface 5a in J14.

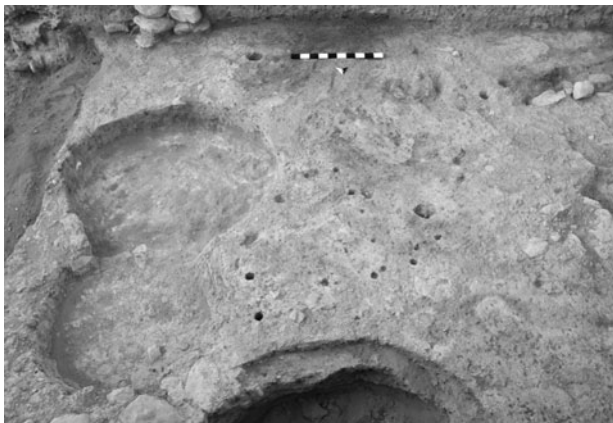


Fig. 35. J14: Surface 5a from the north, showing postholes.

Although the direct stratigraphic link was thereby broken, the absolute heights indicate that the 40cm band of packing separating Level 3 from Level 2 in I14 corresponds to the packing beneath Surfaces 5a–e, and accordingly that those surfaces must have occupied an open space

bordering the eastern side of the Level 2 early house (and that Surfaces 4, 3 and perhaps 2 and 1 correspond with Level 2 late in I14). The ceramics from Phase 5 do indeed resemble material recovered in I14 from Level 2 early in 1995–1996, and also a small body of material from I14c excavated in 2007. It follows that in the stratigraphic sequence excavated in K14b in 2007–2009 the entire occupation period of the single Iron Age house we encountered in the Central Strip had been sliced away and it is fortunate that this deceptive situation has been rectified. We can now say that before the J/K14 part of the Central Strip became an apparently unoccupied open space at the time of Surfaces 1–4, it acted as an external area adjacent to an Iron Age house on the western edge of the mound, slightly low-lying compared with the ground further to the east. In this space there were some storage pits, and in Surface 5a an elaborate fire installation and numerous postholes (fig. 35). Some of the smaller postholes probably belonged to upright poles supporting temporary shade or shelter, while the larger ones with diameters in the region of 20cm, if



they were indeed for upright timbers which is not certain, may have been rather more permanent. Possibly some of these were erected to provide the frame for one or more upright looms, although no clusters of loomweights were recovered in the Central Strip, but both in Surface 5a and Surface 5b there was a rectangular pattern of larger holes which must have had a different purpose.

*1.4.4. Phases 6a–c.* The packing which sealed the Level 3 walls in I14 corresponds to an equivalent layer in J14 onto which the Phase 5 surfaces were laid, which we have assigned to Phase 6. Still further east the sequence overlying the Level 3 architecture falls into three phases, which are now called 6a–c. The latest of these, 6a, is mainly represented by the oven FI11/10 mentioned above with its associated sloping striated deposits. Phase 6b (previously called Phase 5), which preceded it, seems to have been a largely open area though with some short stretches of stone wall foundation (W7502 and W7503) and occasional postholes identified in K14d. The earliest, Phase 6c, has no walls but displays a double arc of postholes which evidently belonged to a substantial timber structure (fig. 36). Only the western side of this posthole structure was exposed,

because its continuation to the east and the south had been entirely removed by later pits. We are therefore unable to say whether the complete plan was circular (as seems most likely), elliptical or even apsidal. The possibility of a structure with an apse at one end is raised by the presence, in the scrappy levels which overlay the Late Bronze Age architecture at Tarsus, of an apsidal structure called Unit U, with a plan which has been compared to a whole range of apsidal buildings built in the post-Mycenaean period of contemporary Greece (Mazarakis Ainian 1997: fig. 428, table 3). There too there are sites where wooden structures make an appearance after the abandonment of Bronze Age stone-built houses, for example at Nichoria in Messenia. To judge from the ceramics, not contradicted by the <sup>14</sup>C data, Phase 6c must have been roughly contemporary with the abandonment of at least the eastern side of the IId Stele Building, over which a rough surface was created into which a good number of postholes had been sunk (Postgate, Thomas 2007: fig. 496).

Although in J14a Phase 6 is represented solely by packing material separating the base of Phase 5 from the brickwork of the Level 3 walls (Phases 7–10), in J14b a feature called by us P11/51 must also belong to the same



*Fig. 36. K14b/d from the east, showing the double arc of Phase 6c postholes cut by P09/46 and P09/55 on the left with concentric clay lines in plan.*



time as Phases 6a–c further east. This appears to have been less of a pit than a large sunken space, more than 3.5m across. The base, which was essentially flat, was lined with a black deposit which could be followed up the edging stones for a height of at least 40cm. These stones on its northern side formed a step up to the southern face of a wall (W1008), separate from but running roughly parallel to the southern side of W1009, which was no longer in use; while on the eastern side they appeared to have been integrated with the western face of the upper courses of the main Level 3 southeast to northwest stone wall W1012. This feature dates from a time when the Level 3 house was already abandoned, but its eastern wall, W1012, still partially visible, was very likely associated with W1006 and W1007, though the stratigraphic connection was destroyed by later pits.

*1.4.5. Level 3 and Phases 7–15.* In the northern part of J14, sealed by the band of sterile packing (11090), was the mud-brick of a solid wall (W1009) running from northeast to southwest across the square (fig. 37). The bricks still stood to a height of about 90cm above a well-defined floor which respected the stone foundation. On this floor stood the base of a storage jar (J14/475) and the crushed remains of two other vessels, a trefoil jar (J14/505+527; fig. 38) and a pilgrim flask with built-in stand (J14/502 = KLT 203; figs 39 and 51k).

At its eastern end W1009 met the equally substantial wall running from southeast to northwest (W1012 = W7509). This was standing at least eight courses of stone high where its eastern face was exposed (see fig. 40) and was probably not erected at the same time as the interior wall W1009 which had only a low stone base. In the north of J14b, W1012 marks the eastern limit of the building, but, to the south, a room (Room 99) was constructed secondarily against its eastern face, two walls of which were exposed already in 1996 at the base of the K14a sounding (W96/47 and W96/48). There is not enough to allow us to reconstruct a plan of the entire structure, but its orientation, solidity and stratigraphic situation indicate that it was contemporary with the Level 3 structures excavated west of P11/11 in I14. The fact that the base of W1009 rested on the associated floor surface, without any foundation, suggests that this was not a normal interior space and that the eastern wall of Room 91 had been entirely removed by P11/11 but was also the eastern wall of the house proper, with Room 98 as an enclosed and carefully maintained space, possibly open to the sky.

It is also evident from the area east of W1012 that this wall remained in use for a considerable period, because there we find a succession of stratigraphic phases, several of which must have been laid down while W1012 was standing (see fig. 41). When first excavated, these levels

were numbered in continuation from Phase 6 as Phases 7–15. Parts of at least three separate buildings are present. A little over 4m to the east of W1012 in Phase 10 there was the southwestern corner of a room projecting from the northern baulk (W7505 and W7506). This was overlaid in Phase 9 by an oven (FI96/16) and later in Phase 8 by a renewal of the same room layout in a slightly different location (W7504). Further east in Phase 8 at least there were the stone foundations of another building (W4300 and W4301; also W4110 and W4111). The unroofed space between these shifting buildings was used for a variety of domestic purposes. There were numerous storage pits. Beside the usual phytolith remains, evidence for their use included carbonised seeds (sampled from pits and hearths) including barley, wheat, grapes, olives and a pulse, probably bitter vetch (see section 2.1), while behind the oven in Phase 9 was a clutch of animal bones which was no doubt food waste. One small pit, dug from Phase 11 (P09/19), had been backfilled with stones including at least three grindstones (K14/813, K14/814 and K14/832), a note on which is included below. Less easy to account for in Phase 9 were the remains of a dog close to a clay feature further east in Phase 9 and the bones of a human neo-nate (K14/1005) associated with the foundation course of W7505. Equally enigmatic is a pair of copper spearheads (K14/883 and K14/886) which were embedded in a Phase 11 packing layer in the same area (fig. 42). Only small exposures of Phases 12–15 were achieved, but they indicate that the area south of W7505 and W7506 already hosted a number of storage pits sunk into striated deposits characteristic of open areas, while in Phase 14 there was a small patch of stone paving which also pointed to an outside space.

*1.4.6. Note on three grindstones from P09/19* (David Heslop). The three pieces of grindstones from P09/19 are all base stones. One is complete (K14/814) and the other two are half pieces. They are all of local conglomerate, a lithology which is comparatively soft and fine-grained, giving the lithology very poor milling properties. K14/832 had sooting on the grinding face. The two half fragments have sub-rectangular forms, with steep sides and flat bases, whereas the complete example has an oval shape, with curved sides. The appearance mainly reflects the shape of the original boulder from which the quern was formed. The conglomerate querns show less careful working than the well-sculpted igneous and sandstone examples. The lithology and overall appearance of K14/814 is very similar to a complete example removed from the packing above Room 98 (Level 3) at the end of the excavation, J14/528, although this was larger and fashioned from a D-shaped boulder. Both were deposited when they were relatively little used and in full working order. The discard of complete and workable querns may be significant in these contexts.





Fig. 38. Trefoil jar (J14/505+ 527). Height 37.3cm (see fig. 52a).



Fig. 39. Pilgrim flask with stand (J14/502 = KLT 203). Height 27.1cm (see fig. 51k).



Fig. 40. J14b: eastern face of W1012 from the east, with base of P11/51 behind (left) and floor of Room 98 (right).

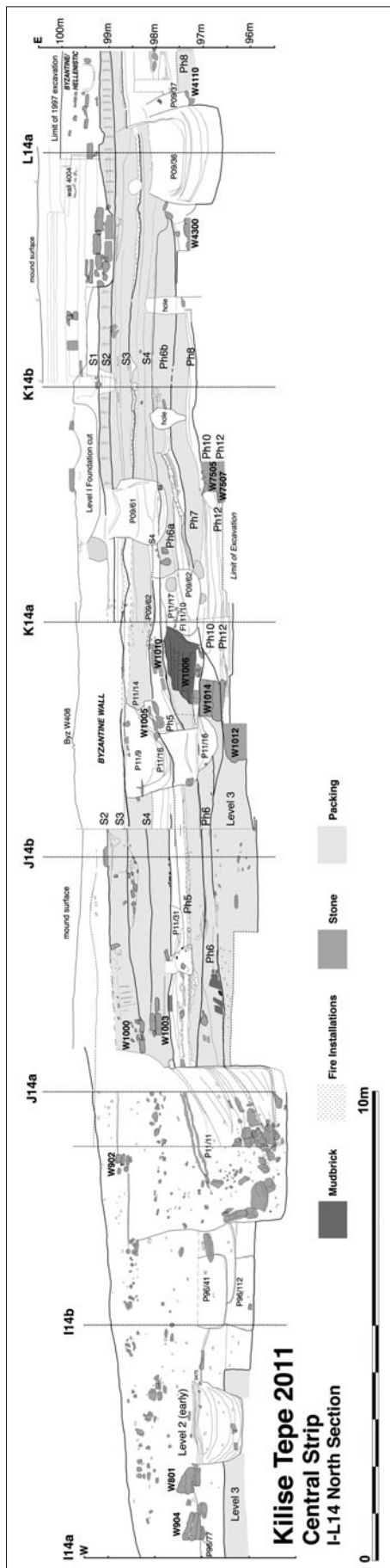


Fig. 41. Northern section of I14-L14.



*Fig. 42. Copper spearhead (K14/883) (after conservation by F. Cole). Length 17cm; weight 30.2gr.*

*1.4.7. Summary.* To sum up, at the end of the Late Bronze Age the solidly-built domestic houses on the western side of the mound were abandoned, with two large storage jars in place in Room 91 and at least two whole jars left on the floor of Room 98. Further east we came across parts of at least two other houses and the space in between shows intensive use for storage and food production, building up through Phases 7–10, which all seem to belong to the lifetime of W1012 and Room 98. Then all these structures went out of use at approximately (or exactly) the same time and in Phase 6b an open area was created in K14 and L14 on which a large and probably circular timber structure was erected. In Phase 6b, although there were some fragments of stone walls in K14 and an unusual sunken feature in J14b further west at this time, the Level 3 walls went out of use and were sealed by a thick band of packing. Directly above this is the succession of open surfaces which belong to Phase 5 and are contemporary with the Level 2 (early) house in I14, but this phase is absent at the eastern end of the strip.

Above Phase 5 (in the west) and Phase 6a (in the east) the nature of the deposits changes noticeably: in place of predominantly yellowish, bricky packing between occupation surfaces, the deposits are more grey-brown in colour and less clean. The surfaces themselves (Surface 4 and Surface 3 in particular) are unusually regular and horizontal, and lack occupation debris for the most part. They extend as an unoccupied open space from L14 right across to the eastern edge of P11/11. The dark-brown deposit on Surface 3 and Surface 4, if indeed it is decayed vegetation, perhaps suggests that this part of the mound may have functioned as a garden. The change from Phase 5 to Surface 4 is the clearest break in the stratigraphic sequence. If there was any break in the occupation of the site, it should probably be placed at this point. The <sup>14</sup>C dates do not really help to indicate where this transition should fall in years BC, but they do suggest that the successive open spaces were there in the run-up to the 2f occupation of this part of the mound, marked by the presence of White-Painted ware, at which time – say about 700 BC – the large grain storage pit in K14d (P09/55) was created, followed later by the even larger one in I/J14 (P11/11).

*1.4.8. Open space.* Looking at the Central Strip sequence as a whole, there is one phenomenon which links the occupation record in Level 3 with the Level 2 (early)/Phase 5 occupation. In each case we have a single architectural building phase, occupied in parallel with a sequence of occupation surfaces which accumulate in the presumably unenclosed space outside. So while the eastern wall of the Level 3 building complex (W1012) stood, the floor of Room 98 remained at the same level, but an extra room was added against its eastern face (Room 99) and a bewildering succession of storage pits, occasional fire installations and more or less dirty courtyard deposits accumulated to a depth of 1m, forming Phases 15–7. Similarly with Phase 5 in the open area in J14a/b, we identified at least four resurfacing episodes, of which the most recent (Surface 5a) accommodated a major oven, occasional storage pits and also a large number of postholes. Both this surface and Surfaces 5c and 5d had a layer of clean plaster too thick in places not to be deliberate. In the space south of the Level 2 (early) house in I14d, which was full of storage pits, there were similar treatments of at least three surfaces as well as five large (20cm diameter) ‘postholes’.

If we look at the northwestern corner, a parallel situation can be seen in the Level II Western Courtyard, against the northwestern wall of the Stele Building. This area was devoted to storage pits and occasional fire installations, and frequently resurfaced. As described above, during Phases IIa and IIb, while the level in the ‘courtyard’

was gradually accumulating, some at least of the rooms in the Stele Building remained at their original level (for example Rooms 7 and 8), with the consequence that they became semi-subterranean. The steady accumulation of layers in the Western Courtyard was most conspicuous in its southeastern corner, next to the southwestern corner of the Stele Building: here a remarkably regular sequence of horizontal striations built up (fig. 25); this was certainly not an internal space and the same strict sequence did not extend right across the Western Courtyard to the north and west. This suggests to me that this was probably in fact a rather narrow passageway with the deposits confined by a southwestern wall which remains unexcavated, since the most similar deep and regular accumulation I have seen is in the southern corridor of a third millennium building at Abu Salabikh (Room 49 in Area E; Postgate, Moorey 1976: 154).

Whether or not this is correct, there can be no doubt that in all these cases we are looking at open spaces which are associated with, but not structurally incorporated in, a building. We have tended loosely to refer to these as ‘courtyards’, but this is rather misleading, since in none of these cases is the space confined within three or four walls of a building: given that within the Stele Building, and within the Level 2 (early) building in I14, there is a probably unroofed space which could more properly be called a ‘courtyard’, I would provisionally suggest ‘forecourt’ to refer to the kind of open space we are looking at here (even if in some cases it was behind the house and more precisely a ‘backyard’). For a building which had no central courtyard, such a space would have met some of the same purposes, but by no means all: it is evidently less protected from physical intrusion and view, and an unenclosed space would not have functioned as a secure animal enclosure. Searching the ethno-archaeological literature has not thrown up any very similar situations. Discussions of the use of space tend to confine themselves to rooms within a building and genuine enclosed ‘courtyard’ spaces, but not to acknowledge that a dwelling might also (or instead) incorporate a defined unroofed and unenclosed space along one or more sides. Yet at Kilise Tepe we did not have to look far to find a parallel situation. Houses occupied by our workmen in the village are regularly of one or two storeys, and in many cases the main entrance to the house is reached by crossing a carefully maintained and plastered strip which evidently forms an integral part of the family’s principal living space. The resulting ‘forecourt’ is usually sheltered by branches or a more permanent shelter supported on wooden or metal uprights and hosts at least one fire installation. These days at least we would not expect to find storage pits here, but in one instance at least it is the location of an upright loom.

## 2. Environmental results

**2.1. Plant food economy at Kilise Tepe during the Late Bronze Age to Early Iron Age transition** (Mette Marie Hald) During the 2007–2011 excavation seasons at Kilise Tepe, 301 soil samples were taken from the excavated areas and processed by machine flotation in order to extract charred plant remains for archaeobotanical analysis. Preliminary results from the analysis of samples covering the Late Bronze Age to Iron Age transition are briefly presented here.

**2.1.1. Methods.** The samples were taken from a range of contexts, including pits, pots, fireplaces and room fill. Soil was floated using a 300 micron mesh sieve for the flot and with a 1mm mesh in the bottom of the flotation tank for the soil residue. The charred plant material was bagged and exported to Britain, and later sent to Copenhagen for laboratory analysis. The remaining soil from the samples was scanned on-site for archaeological material such as pottery, bone and chipped stone, which was then incorporated back into the overall site registration system.

**2.1.2. Preliminary results.** The archaeobotanical samples were scanned for their contents and richness of charred plant remains in the Environmental and Archaeological Science Research Unit at the National Museum of Denmark. So far, 35 samples, covering the Late Bronze Age to Iron Age transition, have been chosen for more detailed analysis based on their contents of charred plant remains. The initial scanning has shown that the preservation of charred plant material on the site is, overall, very good.

The samples contain primarily charred wood, with minor components of seeds. Among the charred seeds, two-row hulled barley (*Hordeum sativum*), einkorn wheat (*Triticum monococcum*) and grape (*Vitis vinifera*) are the most common crops, followed by the less frequently found crops, emmer wheat (*T. dicoccum*), fig (*Ficus carica*), olive (*Olea europaea*), flax (*Linum usitatissimum*), bitter vetch (*Vicia ervilia*) and lentil (*Lens culinaris*). The majority of the plant remains was found in small concentrations, probably reflecting discarded food or food by-products, while one sample, containing some 5,000 barley grains found in a pit, represents a crop in storage.

Among the wild taxa, grasses and small legumes were by far the most common, reflecting their status as crop weeds, and were most likely present on site as the discarded by-products of crop cleaning.

**2.1.3. Late Bronze Age.** In the lower fill of P08/52, a pit belonging to Phase 6 at the very end of the Late Bronze Age, contemporary with or slightly later than the posthole building in K/L14, a concentration of what appears to have been unthreshed einkorn wheat spikelets (judging from the ratio of grains to glume bases in this sample, L14/679, unit

93042) was found, with only stray finds of other crops, such as barley, lentil and grape. Einkorn wheat was an important crop in Turkey until at least the Early Bronze Age (Nesbitt 1995); from this time onwards, free-threshing wheat types such as bread wheat increased in importance. The find of einkorn wheat at this time could, therefore, represent a weed growing in the crop fields rather than the actual crop, though, as this find of einkorn constitutes one of the largest concentrations of seeds (some 700) found during the 2007–2011 seasons, it may still have been an important crop in this region at this time, and later it was the dominant glume wheat in the Ilc Stele Building store-rooms (Bending, Colledge 2007: 591). At Çadır Höyük in central Anatolia, einkorn was common in both Hittite and later periods (Smith 2007).

An interesting find from the Late Bronze Age levels are the remains of figs found in the Stele Building. The figs are present as whole dried fruits or fragments, a large concentration of which was also found in the eastern courtyard of the Stele Building during the 1997 season (Bending, Colledge 2007: 592). Like the earlier specimens, the figs found in the 2007–2011 seasons are flattened and had been pierced in the middle in order to string up the fruits for drying.

**2.1.4. End of the Bronze Age to the Early Iron Age.** From the transition of the Bronze Age to the Iron Age, barley became a much more prominent crop. A large concentration of apparently cleaned grains was recovered from the base of the deep Phase Ilc storage pit P97/73 beneath the floor of Room 10 in the Ilc Stele Building (see section 2.4.2, table 5, Sample 58). Lentil, flax, grape and olive are also found from this time.

In the Iron Age levels sampled in K14 barley is the most common crop, though two samples also contained significant amounts of einkorn wheat, suggesting that this crop was still in use at this time. Pulses such as lentil and bitter vetch are also present, as are figs, flax, olives and grapes.

**2.1.5. Conclusions.** The range of crops found at Late Bronze Age to Early Iron Age Kilise Tepe correlates well with earlier archaeobotanical studies at the site (Bending, Colledge 2007) and with general observations of agriculture in Anatolia at this time (Nesbitt 1995). Unusual, however, are the whole pierced dried figs, also observed earlier by J. Bending and S. Colledge (2007), which have, to our knowledge, only been found at one other site in the Near East, Iron Age Hasanlu in Iran (Hald forthcoming). Fig seeds are relatively common in the archaeobotanical record of the region; the unusual finds at Kilise Tepe of whole pierced figs provide us with further information on the processing of this crop, including evidence for a drying practice still in use today.

## 2.2. *Molluscs* (Sofie Debruyne)

The shell material excavated at Kilise Tepe from 2007 to 2011 was analysed at the dig house in Kışla in August 2011. The entire collection was studied, with the exception of fossil specimens, yielding a total of 1,311 shells and shell fragments of marine, freshwater and terrestrial origin, covering all periods. This may seem a small amount in comparison to the 3,455 finds from the field seasons of 1994 to 1998 (Debruyne 2010), but it should be kept in mind that that assemblage included 2,105 specimens of one species of freshwater snail (*Melanopsis praemorsa*). A detailed discussion of the material from 2007–2011 is to be presented in a forthcoming final report. The following paragraphs give a concise summary of some new results and hypotheses.

The shell assemblage was largely similar to that from 1994–1998. Nonetheless, the following new species were identified: two land snails (*Ceruella virgata*, *Monacha* sp.), one freshwater gastropod (*Theodoxus* sp.), two freshwater bivalves (*Anodonta* sp., *Pisidium* sp.), four marine gastropods (*Stramonita haemastoma*, *Tonna galea* and the ‘money cowries’ *Monetaria moneta* and *Monetaria annulus*), two marine bivalves (*Donacilla cornea*, *Spondylus gaederopus*) and a few fragments of the squid *Sepia* sp.

There is additional evidence for the use of freshwater mussel shells as tools. As mentioned in section 1.3 above, some late Iron Age mussel valves excavated in 1994–1998 showed traces of use-wear. They were interpreted as scrapers (Debruyne 2010: 155, 157), but may also have been used as scoops or spoons (Reese et al. 1986: 80) or for a different purpose. Three further examples were recovered in 2009 from the fill of a large Iron Age storage pit in K14d in the Central Strip (P09/55), approximately contemporary with the late Iron Age contexts in which the examples in I18 were found.

## 2.3. *Mammals and birds*

The faunal assemblage from the excavations in 1994–1998 was analysed and presented by Polydora Baker (Baker 2008). As noted by her (Baker 2008: 411), today there is a tradition of goat-herding along the Göksu valley, principally in the hands of transhumant groups (the name of our village, Kışla, means ‘winter quarters’), while villagers also pasture sheep along with goats. A few cows are kept for milk, but large-scale cattle farms are a recent commercial innovation in the area. Wild boar remain plentiful along the river courses and we are conscious that both foxes and porcupines have favoured the tepe itself with their presence. From her study, it emerges that throughout the occupation of the tepe sheep and goats together, unsurprisingly, make up by far the most frequent species (regularly 75–85%), with cattle and pig coming next. There is a great variety of mammalian and avian species, with as many as 35 identified bird species. After surveying the species distributions and age

profiles of the principal domesticated species, Baker was able to single out certain changes over time for comment, and it may be useful to summarise some of these here.

**2.3.1. *The principal domesticated mammals.*** The age profiles for sheep and goat taken together ‘suggest a focus on consumption of good quality meat from young animals’ (Baker 2008: 421), while the kill-off of 70–80% of animals by four years could reflect animals kept for wool or hair, slaughtered before their meat quality declined, and this would of course agree with the evidence recovered for textile production in the shape of spindle whorls and loomweights at virtually all periods.

One noteworthy aspect is the change in proportion between sheep and goat (Baker 2008: 416, fig. 6). Whereas in the Early Bronze Age sheep and goat are present in roughly equal proportions, in the Middle Bronze Age (Level IV) goats increase to about 60% (or 1.7 goats to 1 sheep) and then in the Late Bronze Age (Level III) to 80% (3.2 goats to 1 sheep). In Level II the proportion of goat drops back to Middle Bronze Age levels (60% goat or 1.4 goats to 1 sheep). Over time this moderate bias in favour of goats seems to be the norm for the area, and it is tempting to see the increase during Level III as reflecting some difference in herding strategy.

It can hardly be coincidental that at the same time there is also a noticeable shift in the relative frequency of cattle and pig (Baker 2008: figs 3–5). In the hand-collected assemblages, cattle bones increase from less than 10% of the total main taxa in Levels V and IV to 15–20% in Level III, whereas pigs decrease from 15–18% in Levels V and IV down to less than 10% in Levels III and II, and this change holds good into the Iron Age (Baker 2008: 416). This general pattern can be observed in the sieved assemblages also (Baker 2008: figs 4, 5). The proportional increase in cattle in Level III could be attributed to a change in diet favouring meat consumption, coinciding with the time of maximum Hittite influence (Baker 2008: 427). On the other hand, if the age at death of cattle is taken into account there may have been a focus on plough animals. Compared to the Middle Bronze Age (Level IV), the age profile in the Late Bronze Age and into the Iron Age shows fewer juvenile to sub-adult animals killed, and Baker concludes that ‘the greater emphasis on adults and elderly animals suggests they were increasingly used for arable’ (2008: 423).

**2.3.2. *Other larger mammals and wild fauna.*** One context which stood out in the 1990s was the backfill of the large late Iron Age ‘ditch’ in the Central Strip, which we now know as P11/11. The late backfill of this, probably among the latest Iron Age deposits at the site, yielded an unusually well-preserved assemblage of larger mammal bones, including donkey, horse, cattle and four camel bones

(Baker 2008: 416). The excavation of more of this deposit in 2011 produced a similar range of faunal material. The range of species represented here probably reflects the usage of this sector of the settlement at the time, suggesting it served as a waste-disposal location for carcasses, some at least from transport animals.

Among the wild fauna, the cervids (mainly red and fallow deer) in particular deserve a mention. As the association between deer and the king of Tarhuntassa named Kurunta ('stag') indicates, these animals had a symbolic value at the time. At Kilise Tepe their bones are not numerically comparable to the domesticated species, but antlers worked into tools of various shapes are not infrequent, some of them shed (and thus collected; Baker 2008: 423–24), such as the heavy piece from the base of an antler with a perforation, found in a Level IIId context in Room 37 alongside the large assemblage of animal bone discussed next. Like hare, all body parts of cervids are represented, and some bones display butchery marks, suggesting that they were hunted and eaten.

**2.3.3. A Late Bronze Age assemblage.** The numerical data from 2007–2011 will be incorporated in the analysis of the 2011 season by Jennifer Jones and Julia Best, but there is one single context from Level IIId which sheds interesting light on meat consumption in the Late Bronze Age. In the southeast corner of Room 37 there was a carefully constructed and plastered oven (FI08/11). Its interior was clean, but in the narrow space between its back wall and the corner of the room was a large collection of more than 1,000 animal bones from a variety of species (faunal assemblage I19/496): apart from a single worked antler (I19/493; fig. 43), Peter Popkin's analysis below shows that these must represent food remains, the great majority from sheep and goat with only a few from larger species, and many of them showing butchery marks. The scarcity of cattle bones here could perhaps be taken as a sign that it was their tractive power rather than their steaks that the inhabitants valued at this time.

*Notes on the faunal assemblage I19/496* (Peter Popkin): A total of 1,051 mammal and bird bones were recovered (table 3). Of the 265 identifiable animal bones 233 (88%) belong to caprines. The dominance of caprines is consistent with other areas and time periods of the site (Baker 2008). The goat to sheep ratio of the caprid remains is 2.3:1 (71:31), which is lower than the 3.2:1 ratio noted for other Late Bronze Age contexts (Baker 2008) but higher than that recorded for other periods, following the pattern of an increase in goats relative to sheep in this period. Unusually, the assemblage is almost completely lacking in large, cattle/horse-size, mammals. Only seven large mammal longbone fragments were recovered and a single vertebra has been tentatively identified as *Bos*

*taurus*. The lack of cattle remains in the assemblage is not typical for Late Bronze Age levels at the site where they often make up 15–20% of the assemblage (Baker 2008).

Fourteen deer (*Cervus elaphus/Dama dama*) bones were identified within the assemblage as were 16 pig (*Sus scrofa*) bones. Both the deer and pig body parts are mostly restricted to distal limb elements including carpals, tarsals, metapodials and phalanges. Five of the deer elements show cutmarks (36%) while three of the pig elements show cutmarks (19%). A single hare humerus with butchery marks was also recovered providing evidence for their consumption and disposal in the vicinity.

Eight bird bones were recovered, of which three have been tentatively identified to species and include two cf. *Anas platyrhynchos* humeri and a single cf. *Alectoris* sp. tibiotarsus. The five other bird bones are a humerus, sternum and two carpometacarpi from medium-size birds and the sternum of a small bird, still to be identified. No fish, reptile or tortoise bones were recovered.

The caprine elements are dominated by longbones, supporting the idea that the hearth assemblage represents the deposition of consumption debris (since these skeletal elements have a large amount of meat associated with them). Epiphyseal fusion data and mandibular tooth eruption and wear data indicate that the majority of sheep and goats were killed between the ages of 12–24 months; however, the mandibular data are limited ( $n = 8$ ). The fusion data are more robust ( $n = 154$ ) and indicate that only 30% of animals lived up to or beyond 28 months of age.

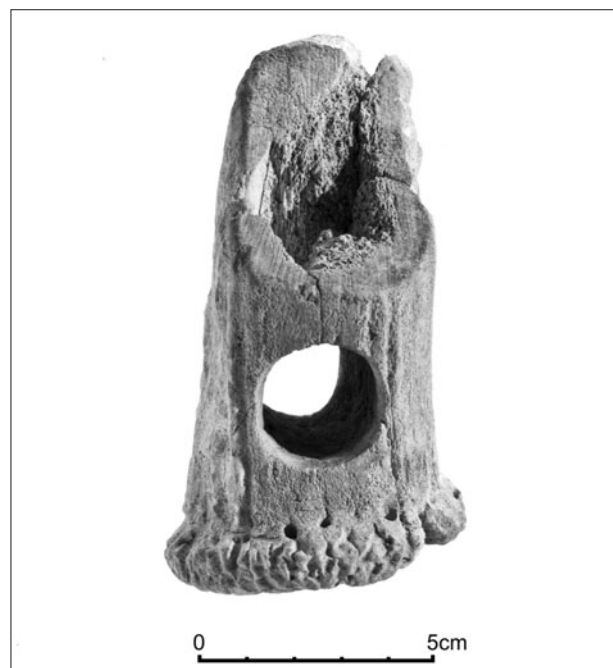


Fig. 43. Socketed tool (I19/493) made from an antler base. Height 11.9cm; diameter of (tapering) perforation 2.3–2.6cm.



<i>Species</i>	<i>Number</i>
<b>Identified mammal species</b>	
<i>Capra hircus</i>	71
<i>Ovis aries</i>	31
Ovis/Capra	131
<i>Bos taurus</i>	1
<i>Sus scrofa</i>	16
<i>Cervus elaphus/Dama dama</i>	14
<i>Lepus</i> sp.	1
Total	265
<b>Unidentified mammal bones</b>	
Medium mammal long bones	104
Medium mammal ribs	226
Medium mammal vertebrae	105
Medium mammal cranial	38
Medium mammal sternum	8
Indeterminate mammal	297
Total	778
<b>Birds</b>	
cf. <i>Anas platyrhynchos</i>	2
cf. <i>Alectoris</i> sp.	1
Medium bird	4
Small bird	1
Total	8
Grand total	1,051

Table 3. *Species analysis of the faunal assemblage (I19/496) from behind oven (unit 84030).*

Twenty four foetal/neonate sheep and goat bones were identified in the assemblage. The concentrated slaughter of sheep and goats within the 6–24 month age range suggests they were raised and killed as meat animals for a population who could afford to slaughter their animals at a young age. It is probable that the hearth assemblage does not represent the ‘herd’ age profile, which likely contains older animals maintained to produce wool and hair, but rather a consumption profile of younger animals specifically chosen to feed the occupants of the building.

Of the 265 securely identified mammal bones, 58 have evidence of butchery, primarily in the form of disarticulation cutmarks (21%). Twenty medium artiodactyl ribs (out of a total of 226 fragments: 9%) have identical chop marks through their heads, typically in a medial-lateral direction,

created when the ribs were chopped away from the spine from a lateral direction. The consistency of this butchery pattern suggests a well-established butchery style. The high percentage of butchery marks found on the material supports the idea that the assemblage results from the disposal of consumption debris.

The bones were recovered showing good preservation, limited fragmentation and a lack of carnivore gnawing, supporting the idea that the recovered assemblage has remained undisturbed subsequent to deposition, has undergone minimal taphonomic modification and is representative of the original deposition assemblage.

The preliminary analysis of the hearth assemblage indicates that it represents the disposal of cooking/consumption waste produced during the occupation of the building and as such is a useful baseline for comparison with other Late Bronze Age areas of the site. It is exceptional to recover faunal remains that are attributable to the occupation of a particular room as they most often represent a mixed deposit accumulated subsequent to the abandonment of an area. Further analysis comparing this assemblage with other Late Bronze Age assemblages from Kilise Tepe, particularly with the rest of the faunal remains recovered from the same room but not trapped behind the hearth, and comparison with Late Bronze Age assemblages from other sites in Turkey is also warranted, and further detailed taphonomic, butchery and metric analyses of the assemblage would maximise the information it provides regarding animal use and consumption in the Late Bronze Age.

#### 2.4. The <sup>14</sup>C determinations (J.N. Postgate)

In total, the Oxford NERC lab has carried out 57 successful determinations for the Kilise Tepe project. Fourteen of these were for the Byzantine arm of the work, and are not considered here. Of the Late Bronze Age and Iron Age samples, three relate primarily to the Level III North-West Building, 18 are from contexts in or directly below the Stele Building, three are from the Level IIe/f area south of the Western Courtyard and 17 relate to the Central Strip. Here we address some of the issues which surface in the interpretation, area by area.

2.4.1. *The North-West Building* (table 4). It was difficult to find suitable material for dating in this part of the site, because the buildings seem to have been demolished and replaced in an orderly fashion which removed in situ burnt material, even in association with the fire installations. Of the individual contexts, Sample 54 comes from an occupation surface preceding the IIIId phase which atypically did have a fair sprinkling of carbonised plant material resting on it, and this is a primary context yielding an ephemeral sample well suited to accurate dating. Sample 55 was animal bone retrieved from the fill of the completely sealed

pit at the centre of Room 37, and here again the relatively large size of the bone and its archaeological context both imply that this should be a satisfactorily short-lived sample, which belongs early in the IIIId phase. Sample 1 is charcoal retrieved from clayey material underlying the stone foundations of Room 37 in its latest IIIId phase. The stratigraphic context is solid, but the charcoal itself is only secondary here, and must derive from activities preceding the wall into which it was incorporated.

The calibrated dates for these samples offer a wide range of dates for the later phases of Level III, beginning in the 15th and extending into the 14th century. After the destruction by fire of the IIIId building, a successor, assigned to Phase IIIe, was constructed. A number of samples came from contexts beneath the Stele Building which are thought to be contemporary with this phase (Samples 56, 4–6). Three of these are charcoal from pine, the fourth is a carbonised fig, frequent specimens of which were found lying on the IIIe courtyard floor in the 1990s, and unlikely to have had a long taphonomic career. The calibrated dates for these samples are unsurprisingly close to the earliest dates for the Stele Building (see below) and suggest that the final years of the North-West Building fell within the 14th century.

**2.4.2. The Stele Building** (table 5). The dating material comes from our most recent excavation seasons, and therefore belongs to the earlier IIa and IIb phases of the building's use. These offered no burnt contexts, unlike Phases IIc and IId, which were both destroyed by fire. Most samples were therefore charcoal from secondary structural fill or packing layers, which are admittedly not ideal. In positioning the different contexts in relation to the building, we have attempted to differentiate materials laid down prior to the erection of the IIa walls from filling layers contemporary with its first foundation and deposits post-dating the IIa occupation and thus attributed to IIb. Taken

as a group, the calibrated dates from these samples yield a picture consistent with our stratigraphic observations. One sample (8) is way too old and must be ignored as recycled material, but the consistency of the remainder, in which the order of the dates determined agrees with the sequence of samples suggested by their stratigraphic contexts, promotes confidence that the secondary nature of the samples and their contexts have not seriously distorted the picture.

Material for  $^{14}\text{C}$  dating was not collected in the 1990s from the burned IIc phase of the building because we believed (correctly) that it belonged to around 1200 BC which is a particularly unhelpful time because the calibration curves at this point tend to offer three possible date-ranges (see Manning 2006–2007). However, in 2007/2008 one sample of carbonised grain was taken from the base of a IIc storage pit in Room 10; this is Sample 58 which does indeed offer a wide range of calibrated dates, but is at least consistent with a phase later than the other IIa/b Stele Building results. As it happens, this date is very close to the determination for Sample 57, which poses a problem for us. This sample, which was taken from the burial of a young sheep skeleton beneath the floor of Room 2 (K20/276; see section 1.2.2), should date to the time of the first IIa construction, but its calibrated date appears to fall a couple of centuries too late. We are not prepared to jettison all the other IIa/b dates in favour of Sample 57, on the grounds that they are merely secondary whereas the sheep deposit should be considered primary, but we are also very reluctant to scrap our understanding of the stratigraphic context of the sheep. We do not see a way to resolve this dilemma.

**2.4.3. The later Western Courtyard** (table 6). Throughout its lifetime the Stele Building was flanked on the west by an open space, called by us the Western Courtyard. The surfaces of this space contemporary with the IIc and IId destruction events were identified, and above the IId destruction a IIe phase conforming with the same layout

<i>KT sample no.</i>	<i>Phase</i>	<i>Sample substance</i>	<i>Archaeological context</i>	<i>OxA</i>	<i>Date cal. BC 68.2%</i>
54	IIIc	<i>Olea europaea</i>	Below Room 32 floor	24159	1452–1406
1	IIId	<i>Pinus</i> sp.	Within W5806 10cm below surviving top	21286	1494–1429
55	IIId	<i>Bos</i> vertebra	Centre of P09/16	25505	1394–1311
56	IIIe	<i>Ficus carica</i>	Pre-Stele Building packing to south of W6002	24160	1389–1306
56 bis	IIIe	<i>Ficus carica</i>	Pre-Stele Building packing to south of W6002	24161	1414–1317
4	IIIe/IIa	<i>Pinus</i> sp.	Pre-Stele Building deposit under Room 10(E)	21287	1407–1316
5	IIIe/IIa	<i>Pinus</i> sp.	Pre-Stele Building packing beneath FI08/14	21360	1426–1321
6	IIIe/IIa	<i>Pinus</i> sp.	Pre-Stele Building packing beneath FI08/14	21288	1446–1395

Table 4.  $^{14}\text{C}$  determinations: Level III.

<i>KT sample no.</i>	<i>Phase</i>	<i>Sample substance</i>	<i>Archaeological context</i>	<i>OxA</i>	<i>Date cal. BC 68.2%</i>
8	Ila construction	<i>Pinus</i> sp.	Room 2 foundation layer	21289	1415–1318
57	Ila occupation	<i>Ovis</i> femur	Room 2 in pit P08/23 below floor	24506	1290–1132
7	Ila occupation	<i>Pinus</i> sp.	Room 10 first floor surface	21361	1436–1326
9	Ila occupation	<i>Pinus</i> sp.	Room 5 below W5700	21290	1691–1622
10	Ilb occupation	<i>Pinus</i> sp.	Room 4 occupation surface	21291	1373–1265
11	Ilb occupation	<i>Pinus</i> sp.	Room 4 pre-IIc packing	21292	1390–1306
12	Ilb occupation	<i>Tamarix</i> sp.	Room 4 pre-IIc packing	21293	1409–1316
13	Ilb occupation	<i>Pinus</i> sp.	Room 4 pre-IIc packing	21294	1374–1260
14	Ilb occupation	<i>Pinus</i> sp.	Room 2 occupation debris	21295	1371–1216
15	Ilb occupation	<i>Pinus</i> sp.	Room 2 occupation debris	21296	1372–1219
16	Ilb occupation	<i>Pinus</i> sp.	Room 2 pre-IIc packing	21297	1379–1270
17	Ilb occupation	<i>Pinus</i> sp.	Room 3 surface	21298	1389–1303
17 bis	Ilb occupation	<i>Pinus</i> sp.	Room 3 surface	21299	1386–1297
58	Ilc occupation	<i>Hordeum vulgare</i>	Basal fill of interior pit P97/73	24074	1292–1133

Table 5. <sup>14</sup>C determinations: Stele Building Phases Ila–c.

<i>KT sample no.</i>	<i>Phase</i>	<i>Sample substance</i>	<i>Archaeological context</i>	<i>OxA</i>	<i>Date cal. BC 68.2%</i>
20	Ile/f	<i>Pinus</i> sp.	Burnt material from FI08/6	21300	806–779
21	Ile/f	<i>Pinus</i> sp.	Burnt material from FI08/5	21301	800–782
22	IIf	<i>Pinus</i> sp.	From pit P08/63	21302	800–767

Table 6. <sup>14</sup>C determinations: I18 Levels Ile–f.

was present in both I19 and further south in I18. Later in Phase Ile and in Phase IIf, which is defined by the presence of the kiln containing a mass of White-Painted ware, the space on the southern side of this courtyard accommodated structures associated with buildings in J18 which were constructed across part of the southern wing of the Stele Building and must post-date it. Further details of these later (Ile or IIf) structures were sought in 2007 and 2008 in the northern half of I18 (see section 1.3).

The only successful samples from this area came from the later phase of Ile or from Phase IIf, and are evidently close to each other in time. Samples 20 and 21 came from good primary contexts in hearths, and suggest a calibrated range in the early years of the eighth century, which is entirely plausible. The sample from IIf came from a secondary context (pit fill); a date between 800 and 767 BC seems too early for the White-Painted IV ceramics, but this entire area was heavily disturbed by pits, and, as with the approximately contemporary 2f (Surface 1) pits in K14, it is no surprise to find earlier material included within their backfill.

2.4.4. *The Central Strip Phase 2f* (table 7). As in the Stele Building, lack of good primary contexts meant that a majority of the samples from this area were charcoal in secondary contexts, either the backfill of pits or structural packing beneath or above the occupation surfaces. The contexts assigned to Phase 2f, that is to say associated with Surface 1, were principally pit fills, and it is therefore unsurprising that they offer a range of dates from the tenth to the eighth century, with the earlier samples doubtless brought up from lower contexts in the process of digging the storage pits. These therefore serve only to establish the presence of some human activity here at the dates they give. The latest (Sample 34) spanning the seventh and sixth centuries will be a better measure of the date of the 2f occupation. This was broadly confirmed by an additional determination from burnt seeds half-way down the very large storage pit in K14b (P09/55) which gives a calibrated date between 771 and 553 BC. This span of time certainly includes our expected date range for the White-Painted ceramics which are characteristic of Surface 1, and on present thinking they should fall towards the middle of it, say between 700 and 600 BC.

2.4.5. *The Central Strip Phases 2–15* (table 8). As described in section 1.4, below Surface 1 the sequence in the Central Strip falls into four main divisions, the successive open surfaces (Surfaces 2, 3 and 4), Phase 5, with a succession of courtyard deposits to the west in J14, Phases 6a–c, including the posthole architecture to the east in K14, and below this Phases 7–15, a sequence of domestic housing with stone foundations. Carbonised material was scarce throughout. A few charcoal samples were retrieved from material associated with Surfaces 3 and 4, and they give dates spread through the 11th to the ninth century (Samples 23, 28–30). Sample 29, the latest of these, should be taken as the most indicative, and this suggests a late ninth-century date for Surface 3. Samples 26, 27 and 53 came from below Surface 4; on stratigraphic grounds the context belongs with the Surface 4–2 sequence rather than the earlier Phases 5 and 6, but the dates may suggest that the charcoal itself was recycled from earlier phases. Sample 26 was run twice and gave

two alternative ranges in the 12th–11th or 13th–12th century, the first very close to Sample 53, the second to Sample 27. By comparison with the determinations for the Stele Building, these seem to fall after the main bulk of Phase IIa/b dates and to be closer to Level IIc. Only two samples from below Surface 5 were successful, both from primary ashy deposits associated with pit usage; one suggests a date in the 14th century (Sample 59; 1413–1316), which would coincide approximately with the initial IIa foundation of the Stele Building. The other (Sample 60; 1257–1128) is apparently rather later. Taken all together, then, these dates tend to support the conclusion based on ceramics that the Level 3 house in J14 and its associated open space is approximately contemporary with the IIa/b phases of the Stele Building, that Surface 3 belongs to the same time as the later IIe floors in I18 and that the material associated with Surface 4 is probably derived from the earlier Iron Age deposits of Phase 5.

<i>KT sample no.</i>	<i>Phase</i>	<i>Sample substance</i>	<i>Archaeological context</i>	<i>OxA</i>	<i>Date cal. BC 68.2%</i>
31	Surface 1	<i>Olea</i>	P07/09 lower fill	21320	997–924
32	Surface 1	<i>Pinus</i> sp.	P07/09 lower fill	21321	893–809
33	Surface 1	<i>Pinus</i> sp.	P07/09 lower fill	21322	896–834
34	Surface 1	<i>Quercus/Olea</i>	P07/09 upper fill	21323	797–597
36	Surface 1	<i>Pinus</i> sp.	P07/15 fill	21324	827–799
36 bis	Surface 1	<i>Pinus</i> sp.	P07/15 fill	21455	895–813
61	Surface 1	<i>Hordeum vulgare</i>	P09/55	25305	771–553

Table 7.  $^{14}\text{C}$  determinations: Central Strip, Surface 1.

<i>KT sample no.</i>	<i>Phase</i>	<i>Sample substance</i>	<i>Archaeological context</i>	<i>OxA</i>	<i>Date cal. BC 68.2%</i>
59	Phase 12/13	<i>Rosa</i> sp.	Fill of P09/19	24075	1413–1316
60	Phase 12	<i>Triticum monoc.</i>	Fill of P09/29	25586	1257–1128
53	Phase 4/5	<i>Pinus</i> sp.	K14b northwest: west of W7502	23174	1265–1131
26	Phase 4/5	<i>Pinus</i> sp.	K14b northwest: packing below Surface 4	21422	1257–1124
26 bis	Phase 4/5	<i>Pinus</i> sp.	K14b northwest: packing below Surface 4	21423	1193–1056
27	Phase 4/5	<i>Pinus</i> sp.	K14b southwest: packing below Surface 4	21304	1194–1056
23	Phase 4	<i>Pinus</i> sp.	K14b northeast: packing above Surface 4	21303	1114–1012
28	Phase 4	<i>Pinus</i> sp.	K14b northwest: burnt spread on Surface 4	21305	1252–1059
30	Phase 3/4	<i>Pinus</i> sp.	K14b southwest: packing below Surface 3	21307	1114–1008
29	Phase 3	<i>Pinus</i> sp.	K14b north: burnt spread on Surface 3	21306	831–800

Table 8.  $^{14}\text{C}$  determinations: Central Strip, Phases 3–12.

### 3. The ceramics

When we turn to the artefactual repertoire, there is no getting away from the common Near Eastern fact that fragments of pottery greatly outnumber all other materials at the site. If only for this reason, they are by far the most sensitive indicators of social and economic contact with neighbouring regions, and at the same time a potential chronological indicator. The detailed study of the material from Level III was begun in 2007 by Claudia Glatz and continued with guidance from her in 2008 by Nancy Benco and in 2009 by Jill Goulder. For the final publication, all the Level III material will be reviewed by Ekin Kozal.

While it was clear already in the 1990s that the Level III material belonged with the conventional Late Bronze Age and the Mycenaean-type vessels from Level II of the Stele Building indicated that it was destroyed early in the 12th century, the dating of the Iron Age ceramics from the later strata in the northwestern corner was much less clear, and in the publication (Postgate, Thomas 2007: chapter 26) we did not attempt to separate the material from different Level II phases although it was obvious that they spanned several centuries. Precisely to address this vagueness, one of the main aims of our more recent work has been to recover a well-stratified sequence from the Late Bronze Age down to the latest pre-Classical phases, and the sounding in the Central Strip was extended with this in mind. The ceramics from here were studied in 2007 by Laura Preston; she was assisted by Christina Bouthillier, who returned each season from 2008–2011 to work on the fresh material and will prepare the final report.

The corpus of ceramics from each area can be interrogated with questions which vary with the research agenda, and it is the task of the final report to present the material consistently and comprehensively for all to see. Here there is not space for this, but our contributors have used their knowledge of the material to address matters of current concern. One of the unresolved issues about the Kilise Tepe Late Bronze Age is its political (and hence also social and economic) relationship to the Hittite empire and/or the kingdom of Tarhuntassa. Glatz's doctoral work on the Anatolian Late Bronze Age enables her to place our apparently 'Hittite' pottery in a broader context and to assess the detailed significance of resemblances to the north-central Anatolian tradition represented at the Hittite capital of Hattusa. Already in the 1990s one component of the Level III ceramic repertoire stood out as different, and this was the Red Lustrous Wheel-Made ware, which Carl Knappett's petrographic analysis confirmed as an import. As an item of cross-border trade, and including certain vessel forms which were favoured for cultic use, it can be seen as very different culturally from the majority of the locally

produced ceramics at the site, and merits separate study. Ekin Kozal, who has studied the overall distribution of the ware throughout Anatolia and Cyprus, has been able to inspect most of the newly excavated samples of Red Lustrous ware, not least from Level IIIc in 2011, and here describes new results which contribute to our overall picture of the ware and its significance.

The most striking component of the ceramics associated with the Stele Building was the range of shapes decorated with red-painted designs. To assist us in writing about these, we have coined the term 'Cilician Red-Painted ware', which we hope is sufficiently accurate and unambiguous to be useful. Our renewed work in the earlier phases of the Stele Building retrieved a few ceramic vessels, including the first full profile of the large decorated jars which now regularly appear in our early Level II ceramic repertoire, in sharp contrast to the sober monochrome wares associated with Level III (fig. 44).

Since our work in the 1990s, very similar red-painted square-rimmed jars have been identified on the Cilician coast at Tarsus and Mersin (Sevin, Köroğlu 2004; Ünlü 2005), and the evidence from <sup>14</sup>C samples suggests that the initial construction of the Stele Building, and hence of the red-painted jars, which we are now describing as Cilician Red-Painted ware, may be as early as the 14th century. This would make it difficult to associate the more or less simultaneous shift in both architecture and ceramics with the creation by Hattusili III of the semi-independent kingdom of Tarhuntassa under Kurunta, a possibility which has been suggested (Postgate, Thomas 2007: 36), and it leaves as an open question what changes in society or politics these changes may reflect.

The red-painted patterns on these jars herald a much more diverse use of red paint on other shapes. From the Stele Building itself comes a painted lid (fig. 45) and from a contemporary storage pit in the Western Courtyard a jar with spout and basket-handle (fig. 11). The bands of red-painted cross-hatching or plain diagonal hatching which appear on bowls may be a later development, but, as noted below (section 3.3.2), they seem to be more frequent in the vicinity of the Stele Building than in contemporary levels in the Central Strip sounding some 20m further south, which may reflect a difference in the occupancy and usage of these spaces. With the predominantly Iron Age material from the Central Strip, the broad issues are the same as before: how and when Late Bronze Age types were replaced by new forms and wares, whether these were local hand-made pottery or imported vessels or styles and whether it was a continuous process or punctuated by one or more breaks in occupation. The <sup>14</sup>C results discussed above help to crystallise the situation, and Christina Bouthillier's contribution here concentrates on some of the newer results.



Fig. 44. Red-painted jar from pit in Room 1 (J20/293). Height 31.0cm; rim diameter 24.5cm; base diameter 13cm. The clay has a temper of black and white grits and pebbles (unit 78023) (Jackson, Postgate 2009: 229, fig. 4).

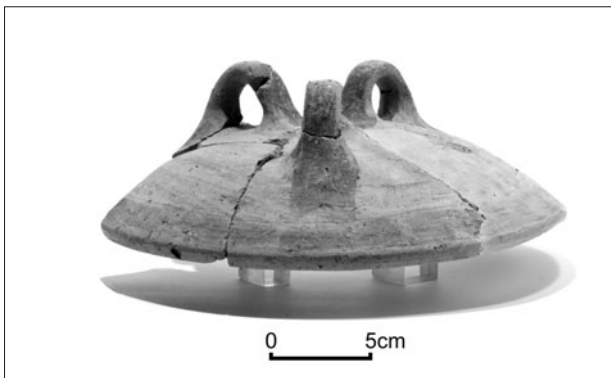


Fig. 45. Red-painted lid from Ilb fill of Room 2 (K20/283). Diameter 24cm. Hand-made in light-brown grit-tempered clay, with three loop handles radiating from the centre. Wash of red paint round rim and leading up from the rim and over the handles into the centre (unit 81410) (for the shape, see Yağcı, Kaya 2009: 474, resim 9).

### 3.1. The northwestern corner Level III (Claudia Glatz)

The architectural remains and materials of Level III are thought to date from before the end of the Late Bronze Age (Postgate 2007: 33–36; Seffen 2007: table 7). The find contexts uncovered in the renewed excavations at Kilise Tepe concentrate on the later building phases IIId and IIIf, the latter of which immediately precedes the Level II Stele Building in the northwestern corner of the site. Hittite textual sources indicate a strengthening of asymmetrical political ties between Cilicia and the Hittite empire in the period roughly contemporary with the occupation of Level

III. In the light of the recent discourse on the form and intensity of Hittite cultural influence on its subject territories (Gates 2001; Postgate 2007; Glatz 2009), an important question with regard to the new Kilise Tepe materials has been the characterisation of its Late Bronze Age inhabitants' relationship with the central Anatolian plateau. Due to there being only a small number of excavated early Level III contexts (IIIf–c), it is not possible to investigate the development of the site's ceramic tradition from the beginning of the Late Bronze Age (for a discussion of the 1994–1998 ceramic results, see Symington 2001; Hansen, Postgate 2007a). An important research focus with regard to the 2007–2009 materials, thus, has been a cross-regional contextualisation of the later Level III ceramic tradition. A second objective was to define better the cultural transition from Level III to Level II. Against a background of formal and technological continuity (see Level II discussion below; Hansen, Postgate 2007b: 343; Knappett, Kilikoglou 2007b: 256), characteristic introductions of Level II include grooved-rim bowls and square-rim jars as well as increasing frequencies of painted surface decoration, especially cross-hatched motifs and striped rims. This change in the local ceramic tradition has been proposed to represent the cultural expression of the loosening grip of the Hittite empire on Cilicia in the later part of the Late Bronze Age (Postgate 2007: 148–49). The aim with regard to the newly excavated materials has been to define better the relative chronology of the introduction and development of vessel types and surface decorations characteristic of Level II.

**3.1.1. Level III ceramics.** The pottery of Level III consists primarily of vessel fragments, with the exception of an in situ base of a storage jar and a clutch of larger sherds in a burnt heap on the floor of the IIIf Eastern Courtyard (unit 1428). This contrasts with subsequent Level II contexts, where whole and reconstructible profiles were recovered from the Stele Building and associated courtyard levels during the 1990s and the 2007–2009 campaigns. The highly fragmented character of the Level III assemblage is due to the predominantly secondary find contexts, such as fills of pits and packing between floors, from which the majority of Level III pottery has been recovered. Hence the reconstruction of frequency distributions from this assemblage is fraught with some difficulty, and for the purpose of this report only qualitative observations will be made. A frequency seriation of the Level III material, however, is desirable in the long-run since the Level III pottery tradition appears to have been conservative in character with little formal innovation taking place over several hundred years. This resonates with contemporary Anatolian and other Near Eastern ceramic traditions. The second millennium BC ceramic tradition of the north-

central Anatolian plateau is particularly notorious in this regard, with little innovation in vessel form, fabric and surface treatments taking place for over 600 years (Mielke 2006; Schoop 2006; 2011); but Late Bronze Age plainware assemblages from Troy (Koppenhöfer 2002) to Ugarit (Monchambert 2004) as well as the Middle Assyrian sites in the Habur region (Pfälzner 1996; Duis-termaat 2007) all display similar developmental patterns. At Boğazköy-Hattusa, a series of quantitative approaches, including frequency seriation, has proven successful in highlighting diachronic change in the form of proportional shifts in vessel frequencies and average vessel sizes over time (Schoop 2006). Beyond a better chronological control, the preliminary results obtained at Boğazköy-Hattusa are beginning to yield a more detailed picture of the social and economic developments that may have given rise to – or that were negotiated through – changing production and consumption behaviours.

The great majority of vessels in Level III are wheel-made, often showing distinctive manufacturing marks on the interior or both surfaces. Hand-made or hand-made and wheel-finished pottery, however, is also found in the Level III repertoire. With the exception of Red Lustrous Wheel-made vessels, all Level III pottery appears to be of local manufacture. The most common local fabrics in Level III are medium to fine mineral tempered and predominantly buff, yellow and brown firing fabrics used for a range of

functional types including bowls, plates, jugs and jars (Knappett, Kilikoglu 2007b: 256). Cooking pot fabrics are heavily mineral tempered; many appear to be hand-made and possibly wheel-finished. Another prominent component of the fabric repertoire fires to a distinctive brick red (Hansen, Postgate 2007a: 329: wares a, b, c: ware a corresponds to Red Lustrous Wheel-made Ware; see Knappett, Kilikoglu 2007b: 257). The renewed excavations of Level III yielded numerous fragments of Red Lustrous Wheel-made ware, including thin-walled bowls, libation arms (fig. 46a) and spindle bottles (fig. 46b) (see further section 3.2). Jars and pithoi are made from a coarser variant. With the exception of Red Lustrous Wheel-made spindle bottles, no pre-firing potmarks were found on Level III pottery. This sets Kilise Tepe apart from contemporary sites along the Cilician coast, where significant proportions of Late Bronze Age ceramic assemblages carry such marks (Goldman 1956; Korbel 1987; Gates 2001; 2006; for a summary of Late Bronze Age Anatolian potmarks, see Glatz 2012).

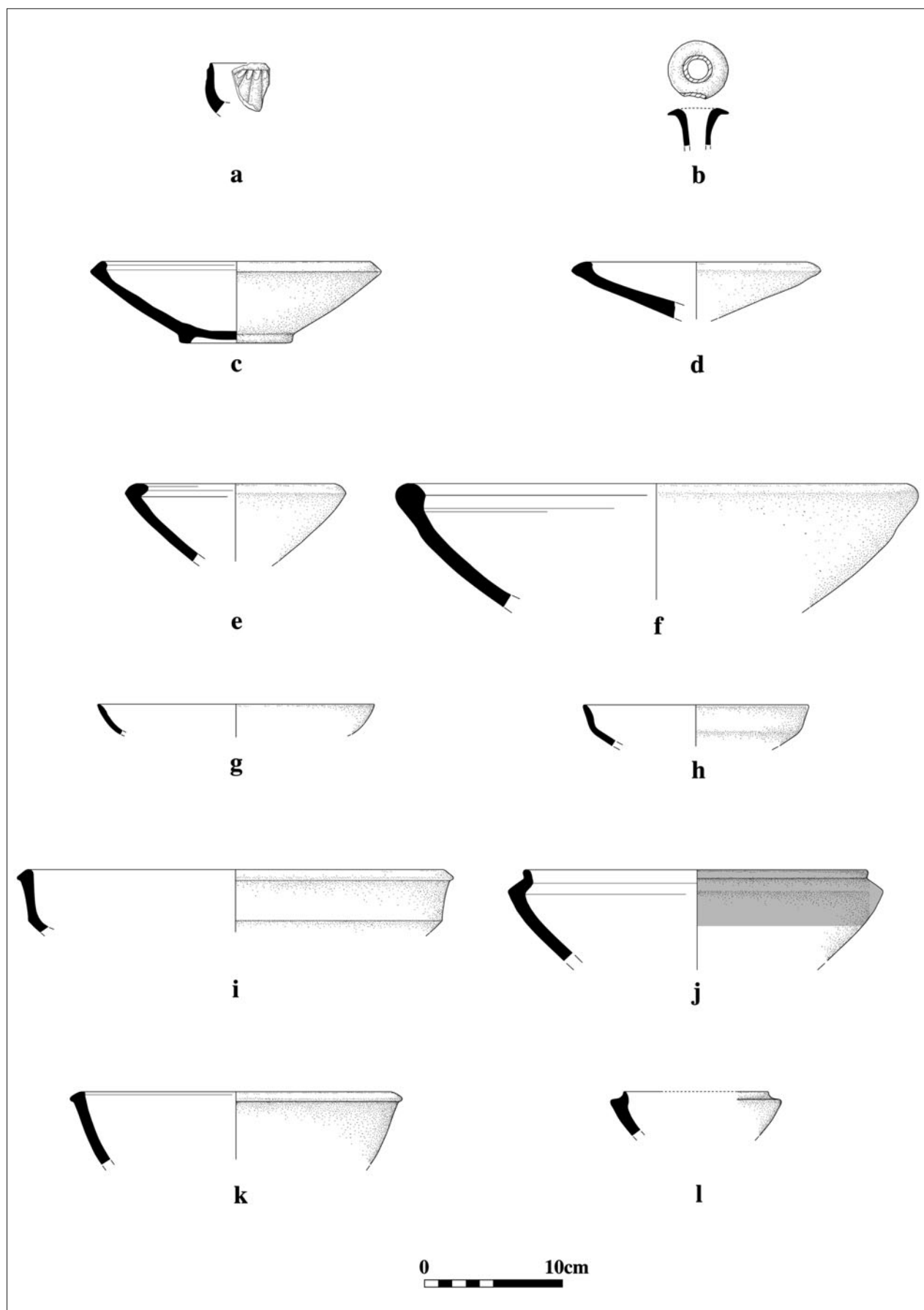
The majority of vessels from Level III are plain with smoothed surfaces or monochrome red, brown and buff slips and washes which are occasionally burnished. Many body sherds of medium to large jars have thinly applied red to purple paint or washes on the exterior that appear to cover large parts of the vessel surfaces; painted designs could only be identified on a very small number of Level III vessels.

#### *Catalogue to fig. 46*

- a Level IIIId, unit 94014. Small rim fragment of a libation arm. Fine red clay (ware a). Hand-made/moulded? Burnished. Di. 3. (C9/1225).
- b Level IIIId, unit 94003. Rim and neck of a spindle bottle. Fine red clay (ware a). Wheel-made. Burnished. Di. 4.3. (C9/1093).
- c Level IIIe, unit 84018. Full profile of a bowl with internal rim and ring base. Buff fabric with dense calcite and grit inclusions. Surface smoothed. Wheel-made. Di. 19. (C8/1003). Fig. 48.
- d Level IIIId, unit 71701. Rim and upper body of a bowl with internal rim. Coarse brick-red fabric with fairly large limestone inclusions. Red slip on upper interior and exterior. Wheel-made. Di. 18. (C7/259).
- e Level IIIId, unit 71701. Rim and upper body of a bowl with internal rim. Medium buff fabric with dense small black grit and limestone temper. Brown slip. Wheel-made. Di. 16. (C7/260).
- f Level IIIId, unit 94008. Rim and body of a large, heavy bowl with internal rim. Medium pinkish-buff fabric, slightly grey core. Plain surface. Wheel-made. Di. 36. (C9/1192).
- g Level IIIId, unit 84049. Rim and body of a bowl with simple rim. Buff, medium fabric with small black grit temper. Wheel-made. Di. 20. (C9/1005).
- h Level IIIe, unit 84017. Rim and body of carinated bowl with simple rim. Medium-fine buff mineral tempered fabric. Traces of red paint on interior and exterior. Wheel-made. Di. 16. (C8/1000).
- i Level IIIId, unit 84038. Rim and body of a carinated bowl with everted rim. Medium-coarse, yellowish-buff fabric with limestone inclusions. Wheel-made. Di. 30. (C9/1027).
- j Level IIIId, unit 84019. Rim and body of a bowl with pronounced carination and simple vertical rim. Medium buff clay. Red paint on interior rim and exterior upper body. Wheel-made. Di. 24. (C8/1004).
- k Level IIIId, unit 84010. Rim with body of a bowl with everted rim. Medium yellowish-buff clay. Surface plain. Wheel-made. Di. 24. (C9/1219).
- l Level IIIId, unit 84043. Rim and body of a bowl with grooved rim. Medium buff, lime grit tempered fabric. Wheel-made. Di. ?. (C8/1036).

Di. = diameter; th. = thickness; all measurements are in cm.





*Fig. 46. Ceramics from Level III.*

They include the lower half of a globular jar with broad parallel lines on the exterior (unit 84043) and a fine-ware body sherd with two thin lines of red paint (unit 84043), both from Level IIId, and a body sherd of a jar with cross-hatching from Level IIle (unit 84012). We cannot wholly discount the possibility that some or all of these sherds are intrusions from later Level II layers.

In terms of the functional types represented, bowls clearly dominate the Level III assemblage on the north-western corner. Most ubiquitous are shallow bowls with internally thickened and/or pointed rims, made of medium to fine buff, brown and red fabrics. The majority are plain with smoothed surfaces, but full and partial, dark-red, brown, purple as well as buff slips are not uncommon. Within this general category, however, there is immense formal variation, which crosscuts fabric categories and surface treatments (figs 46c–e and 48). A deeper, more thick-walled, medium-tempered and usually buff-coloured internal rim bowl with plain smoothed surfaces (fig. 46f) is less common. Also represented are shallow, usually fine-ware, bowls with simple pointed rims (fig. 46g) and carinated bowls with either simple (fig. 46h) or everted rims (fig. 46i–j). Bowls with simple everted rims (fig. 46k) are also found in Level III but in

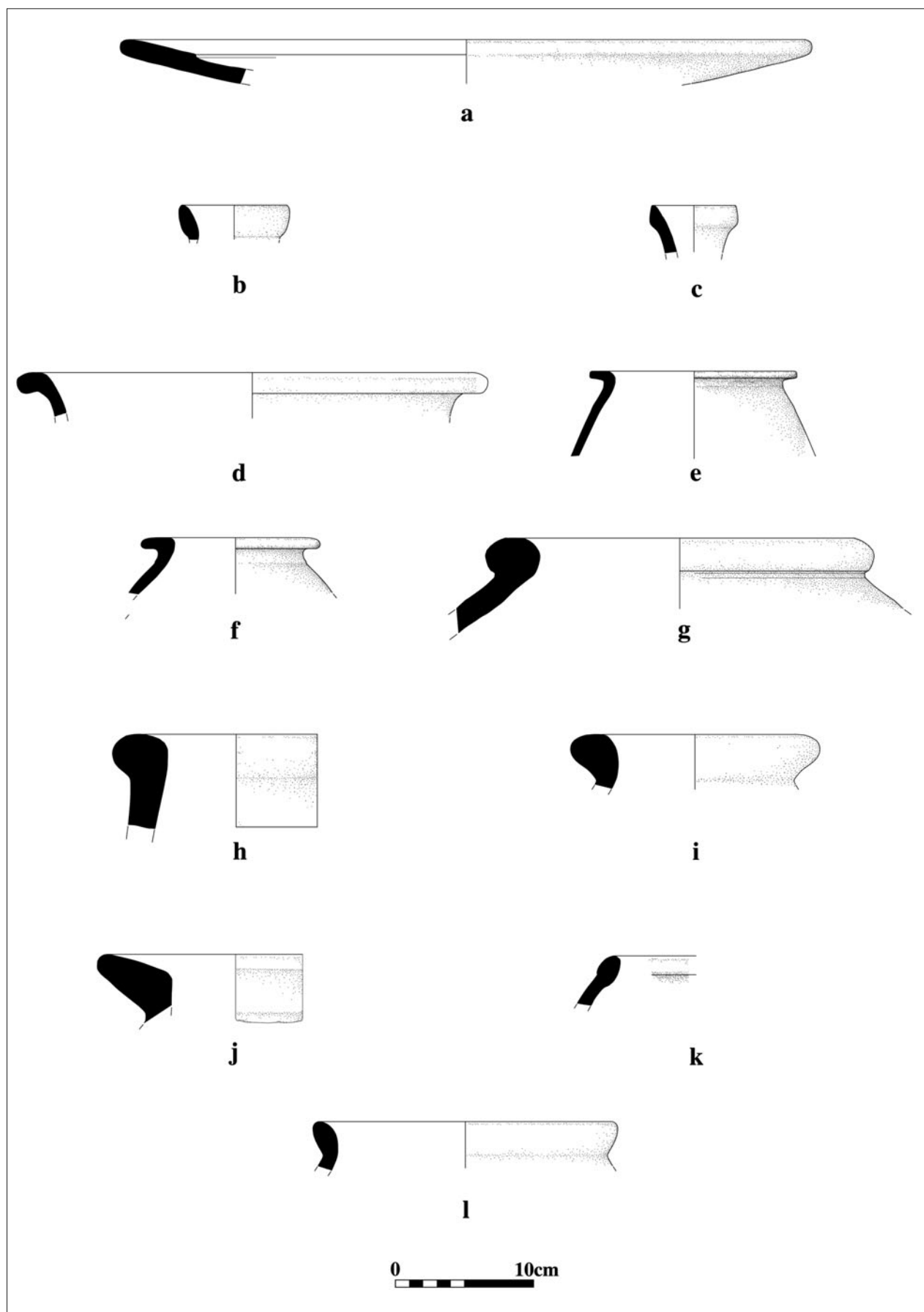
much smaller numbers than those with internal rims. Only a handful of grooved-rim bowls, a characteristic form of the following Level II, were found in Level III contexts (units 84025 and 84043) (fig. 46l), and none of these has painted decoration.

Shallow plates with stepped rims (fig. 47a) or platters with simple rims also form part of the Level III repertoire and present a direct link with the central Anatolian ceramic tradition of the Late Bronze Age. Unlike central Anatolian plates, however, which are usually coarsely tempered and hand-made (Schoop 2011: 246–47), plates at Kilise Tepe tend to be made of medium clays, have smaller diameters (clustering below 30cm) and are primarily wheel-made, with occasionally burnished slips or washes.

The numbers of diagnostic fragments of jars with constricted necks and bottles found during the 2007–2009 excavations are rather small. Usually made of fine or medium-fine buff, red and orange fabrics, jars with narrow necks and bottles are frequently slipped and/or burnished. Rim shapes include simple, rounded and externally thickened (fig. 47b) and profiled (fig. 47c) examples. They also include Red Lustrous Wheel-made spindle bottles (fig. 46b) and trefoil jugs in medium-slipped or washed buff and brown fabrics.

#### *Catalogue to fig. 47*

- a Level IIId, unit 84047. Rim and body of a plate with stepped profile. Buff medium-coarse fabric with dense mineral inclusions. Wheel-made. Di. 50. (C9/1050).
- b Level IIId, unit 84025. Rim and neck of a jar with constricted, thickened neck. Medium pale-red fabric with mineral inclusions. Exterior smoothed. Wheel-made. Di. 8. (C9/1000).
- c Level IIId, unit 71701. Rim and neck of a jar with constricted neck. Medium-fine brick-red and grit-tempered fabric. Exterior, roughly smoothed orange-red slip. Wheel-made. Di. 6. (C7/258).
- d Level IIId, unit 71703. Rim of a jar with everted drooping rim. Buff, dense grit temper fabric. Brown, smoothed slip, some traces of burnish. Wheel-made. Di. 34. (C7/221).
- e Level IIId, unit 84042. Rim and upper body of a small jar with tapering upper body and everted, squared rim. Medium red fabric with lime temper. Exterior burnished. Wheel-made. Di. 12. (C8/1028).
- f Level IIId, unit 84042. Rim and upper body of a small jar with tapering upper body and everted, rounded rim. Medium-fine orange fabric with lime and grog? temper. Exterior red burnished. Wheel-made. Di. 8. (C8/1033).
- g Level IIId, unit 84047. Rim and upper body of a pithos/jar with incurving upper body and rounded rim. Coarse red fabric with dense mineral inclusions. Wheel-made. Di. 38. (C9/1048).
- h Level IIId, unit 71701. Rim and upper body of a pithos/jar with straight neck and external rim. Buff coarse fabric with grit and small pebbles. Exterior light brown slip. Wheel-made. Di. ?. (C7/256).
- i Level IIId, unit 84049. Rim and upper body of a pithos/jar with everted, flattened rim. Medium-coarse, red mineral-tempered fabric. Wheel-made. Di. 36. (C9/1008).
- j Level IIId, unit 71703. Rim and upper body of a pithos/jar with everted, flattened rim. Dense brick-red fabric with large limestone inclusions. Exterior smoothed. Wheel-made (and hand-made?). Di. ?. (C7/231).
- k Level IIId, unit 71703. Rim and upper body of a cooking pot with simple, thickened rim. Dense grey fabric with large angular and sub-angular quartz and grit inclusions. Surface smoothed. Hand-made. Di. ?. (C7/229).
- l Level IIId, unit 71701. Rim and upper body of a cooking pot with thickened, everted rim. Dense grey fabric with large angular and sub-angular quartz and grit inclusions. Surface smoothed. Signs of secondary burning. Hand-made. Di. 22. (C7/255).



*Fig. 47. Ceramics from Level III.*



Fig. 48. Internal rim bowl (unit 84018) (see fig. 46c).

Common jar types include vessels with flaring necks and horizontally-everted or drooping lips (fig. 47d). Rarer types have inverting upper bodies and simple horizontal or everting rims (fig. 47e–f). Large jars and pithoi tend to have tapering upper bodies and everted or rolled rims (fig. 47g) as well as straight necks and external (fig. 47h) as well as varyingly flattened rims (fig. 47i–j). The majority of jars are made of medium buff and brown fabrics, although red to orange fabrics are found in most jar categories. Small numbers of square-rim jars, a characteristic shape of the following Level II, were found in later Level III contexts (units 84012 and 84014).

There are three types of cooking pots found in Level III. They are all hand-made, or hand-made and wheel-finished, made of coarse gritty fabrics and show signs of secondary burning. The first type, a hole-mouth jar with simple inward curving upper body, is rather rare. Most common are cooking pots with thickened and folded rims (fig. 47k), which are also popular on the central Anatolian plateau during the Late Bronze Age (Schoop 2011: 249). A third type with thickened vertical or slightly everting rim (fig. 47l) increases in frequency throughout Levels III and II. All three types of cooking pot are made from the same local clays (Knappett, Kilikoglu 2007b: 256–58; Phelps 2010: 19–20).

*3.1.2. Discussion.* A number of parallels can be drawn between the Level III assemblage from the northwestern corner of Kilise Tepe and the Late Bronze Age north-central Anatolian ceramic repertoire associated with Hittite centres. General material culture similarities, however, are not sufficient to postulate a causal relationship between political domination and culture change, whether imposed or locally driven. In order to investigate such a relationship, the cultural traits in question have to fulfil certain chronological and geographical criteria (Glatz 2009: 130): they have to originate on the central Anatolian plateau and their invention/introduction must date to the Late Bronze Age,

the time of Hittite political dominance of its surrounding regions. Cultural continuity from the Middle to the Late Bronze Age (Schoop 2003) and simple vessel forms with parallels in other contemporary pottery traditions severely restrict the range of diagnostic types. Plates with stepped rim profiles, which are a central Anatolian invention of the Late Bronze Age (Schoop 2006: 231), are among the most promising vessel types in this respect. Plates with stepped profiles are well attested at Kilise Tepe. They are locally produced in the site's common buff to brown, mineral-tempered clay. Differences in manufacturing technique, average size and surface treatment point towards the adoption of the north-central Anatolian concept of a stepped plate (for a description of north-central Anatolian plates, see Schoop 2011: 246–47), but with significant modifications to make it suitable for local cultural tastes and/or functional needs. The stepped plates of Level III are generally smaller than those found at Boğazköy-Hattusa; they are wheel-made instead of hand-made, and most Kilise Tepe plates are made of medium-fine clays, frequently carry slips/washes and are occasionally burnished. Thus, although a central Anatolian cultural influence, the concept of the plate appears to have undergone a rather significant reinterpretation at Kilise Tepe, suggestive of a divergence in primary vessel function. Other central Anatolian vessel types, which appear for the first time in the Late Bronze Age, are miniature bowls/cups and juglets (Schoop 2011: 247). Although fragments of small bowls have been found in Kilise Tepe Level III, they are not of the roughly-made type known from central Anatolia and Cilician sites such as Tarsus (Goldman 1956: for example fig. 1176). Miniature juglets are altogether absent from the Kilise Tepe corpus. Bowls with inverted or internally-profiled rims, although restricted neither to the Late Bronze Age nor the central Anatolian plateau, are a dominant aspect of the ceramic repertoires of Boğazköy-Hattusa and other central Anatolian sites in the early to middle part of the Late Bronze Age (Müller-Karpe 1988; Parzinger, Sanz 1992; Mielke 2006). They are also ubiquitous in Kilise Tepe Level III (and II), where they are found in a range of formal sub-variants, diverse fabrics and surface treatments. In addition to the local buff fabrics, the frequent use of red wares for these bowls (as well as for other vessel types) sets apart the Kilise Tepe assemblage, at least visually, from contemporary central Anatolian traditions. The red-ware fabrics used for shallow bowls and other vessels at Kilise Tepe are a coarser variant of the classic Red Lustrous Wheel-made ware also found in abundance at Kilise Tepe in the form of pilgrim flasks and libation arms and some bowls. The high frequency and range of vessel types produced in this red fabric and the frequent use of monochrome slips and washes which seemingly reference the finer Red Lustrous Wheel-made surface treatment, may

point towards a close spatial and/or socio-economic relationship between Kilise Tepe and the communities producing the Red Lustrous Wheel-made types, which are traditionally thought to have been located on Cyprus (see section 3.2; Erickson 1993; Hein 2007). So-called ‘orange ware’ shallow bowls with inverted rims found at Late Bronze Age Mersin may represent a related phenomenon (Sevin, Koroğlu 2004).

Carinated bowls with everted rims and S-shaped bowls are good examples of why chronological and geographical criteria are important in the assessment of imperial cultural influence. Both types find parallels in the Hittite heartland and elsewhere in Anatolia, but in the case of Kilise Tepe represent an element of continuity in the local ceramic tradition from the Middle Bronze Age (Symington, in Postgate, Thomas 2007: fig. 382 nos 484, 486, fig. 385 nos 532–39). Large jars and pithoi with everted, thickened or rolled rims are comparable to shapes from Boğazköy-Hattusa (Müller-Karpe 1988: type P1; Parzinger, Sanz 1992: type C1), but are also common at, for instance, Porsuk (Dupré 1983: pls 27–31.193–96), while pithoi with everted and flattened rims do not have direct parallels in the central Anatolian repertoire. Rims likely belonging to bag-shaped jars with simple everted rims and jars with flaring necks and flattened or drooping lips (Müller-Karpe 1988: types T10, T12) are also part of the Kilise Tepe repertoire. Unlike other contemporary ceramic traditions in Cilicia, the renewed excavations at Kilise Tepe did not yield any pre-firing potmarks in Level III. Overall, it would seem that Kilise Tepe in Level III adopted several elements of the central Anatolian ceramic tradition, but not without a strong degree of local reinterpretation with regards to visual (red wares) and potentially functional (smaller, slipped plates) aspects.

As regards the development of Kilise Tepe’s ceramic tradition from Level III to Level II, the renewed excavations have brought to light several securely stratified units of Phases IIIc–e which contained small numbers of ceramic traits, which, thus far, were thought to appear in Level II only. They include a grooved-rim bowl and several small to medium jars with squared rims, painted bands and cross-hatches. This strengthens the impression of continuity between the two occupation phases. Important aspects of continuity from Level III into the next occupation phase are the continued use of the same clay sources, a penchant for red wares and for characteristic types such as bowls with internal rims, the two main cooking pot types as well as a range of Level III jar types. The profiles of plates become less pronounced in Level II. Although plain, smoothed surfaces predominate, slips and washes remain popular in addition to a range of painted decorative styles, in particular the appearance of vertical dribbles on vessel rims.

### *3.2. New Evidence on Red Lustrous Wheel-made ware from Level IIIc–d (Ekin Kozal)*

The study of Red Lustrous Wheel-made (RLW-m) ware at Kilise Tepe is ongoing and not completed yet. Thus the goals of the research and the first new results on the material from the excavations in 2007–2011 will be presented here.

The main problematic issue with regards to RLW-m ware is the determination of its origin, which has been the subject of scholarly research in recent decades (Eriksson 1993; Knappett 2000; Kozal 2003; 2007; Knappett et al. 2005; Hein 2007; Knappett, Kilikoglou 2007a; Mielke 2007; Schubert, Kozal 2007). Eriksson has investigated the problem from various aspects. Her criteria in concluding that it originates from Cyprus are based on the issues of its frequency and earliest appearance, as well as the descriptions of all classified shapes and the association of the potmarks with Cypro-Minoan signs (Eriksson 1993; 2007a; 2007b: 159–69).

However, additional studies on the distribution of the ware in Anatolia have revealed results that have complicated the issue and these should be described here in brief. First of all, RLW-m ware shows a pattern of distribution in Anatolia that differs from that of Late Cypriot wares. If the ware is also of Cypriot origin, the reasons for this distinction are not apparent. In Anatolia, RLW-m ware is represented only at Hittite sites or at settlements that were under Hittite influence. However, the spectrum of forms represented is limited to three shapes in north-central Anatolia, in particular at Boğazköy. Additionally, it is generally not found at Anatolian sites that yield Mycenaean pottery in large amounts. Despite its presence in the Levant, Egypt and Cyprus, it is not found in the Aegean. Obviously, the geo-political situation in Anatolia would have had an influence on its distribution (see Kozal 2003; 2007).

Chemical and petrographic analyses conducted by a number of researchers indicate a common composition for these ceramics from different sites in Anatolia, the Levant, Cyprus and Egypt, and point to a single place or region as their production centre (Knappett et al. 2005; Artzy 2007; Knappett, Kilikoglou 2007a; Schubert, Kozal 2007). Rare local imitations of the ware are also known (Yannai, Gorzalczyk 2007), but these results were for the standard RLW-m ware, not the local imitations. These analyses demonstrate that RLW-m ware clearly forms a separate group compared to the standard Hittite wares (Knappett et al. 2005; Knappett, Kilikoglou 2007; Schubert, Kozal 2007). Besides, C. Knappett has proposed north Cyprus as the best geological match (Knappett, Kilikoglou 2007: 133). However, these studies need to be supported by archaeological evidence. These problems and debates demonstrate the necessity of examining the ware in a systematic way on the basis of secure chronological contexts.

It is already acknowledged that RLW-m ware is common in the Göksu valley (French 1965; Eriksson 1993: 132). Study of the material at Kilise Tepe – the largest and only excavated site in the valley – will contribute to our understanding not only of the site but also of the region. Furthermore, it will contribute to our understanding of the trade routes for the transport of RLW-m ware (Eriksson 1993: 132; Kozal 2003). In general, the wide distribution of the ware in the eastern Mediterranean and in inland Anatolia clearly indicates the use of both sea and land routes in its distribution (Kozal 2003). Since the origin is not known, the direction of the transport has not been clarified yet. However, the Göksu valley seems to be the main inland route from north to south or south to north for RLW-m ware.

The aims of the study of the RLW-m ware at Kilise Tepe are to establish the earliest appearance, life-span, contextual and chronological distribution, represented shapes, fabrics and potmarks of the ware. Moreover, although no Black Lustrous Wheel-made ware has been identified at the site so far, its presence or absence will be one of the issues to address. Another aspect to investigate is the relation between the forms of the local ware and RLW-m ware.

Observations made with these questions in the background have revealed preliminary evidence that demonstrates the insecurity of some previously drawn conclusions.

First of all, RLW-m ware is encountered in almost every assemblage in Level III, indicating the dense representation of the ware at the site, both in the 1990s excavations (Symington 1995: 180–82; 2001: 169) and in those of 2007–2011. All the main forms catalogued by P. Åström and K.O. Eriksson are represented (Åström 1972: 198–206; Eriksson 1993: 18–29; Symington 2001: 169; Hansen, Postgate 2007a: 339–41). These are bowl, krater, jug, spindle bottle, pilgrim flask and arm-shaped vessels. In addition, three new types of krater (i.e. jar) and a footed vessel have now been identified that had not previously been recorded as forms of RLW-m ware at any other site. First is a krater (fig. 49a) with a diameter of 34–36cm that has an everted flat rim and a ridge (i.e. saddle) at the interior edge of the rim. It is produced from coarse red clay. The second example is a smaller krater with a 20cm diameter, an everted thickened triangular rim and a fine red clay (fig. 49b). The third is a krater with an everted flat rim of 14cm diameter (fig. 49c). All three fragments were found in the fill sealed by the lower IIId surface (Floor 2)

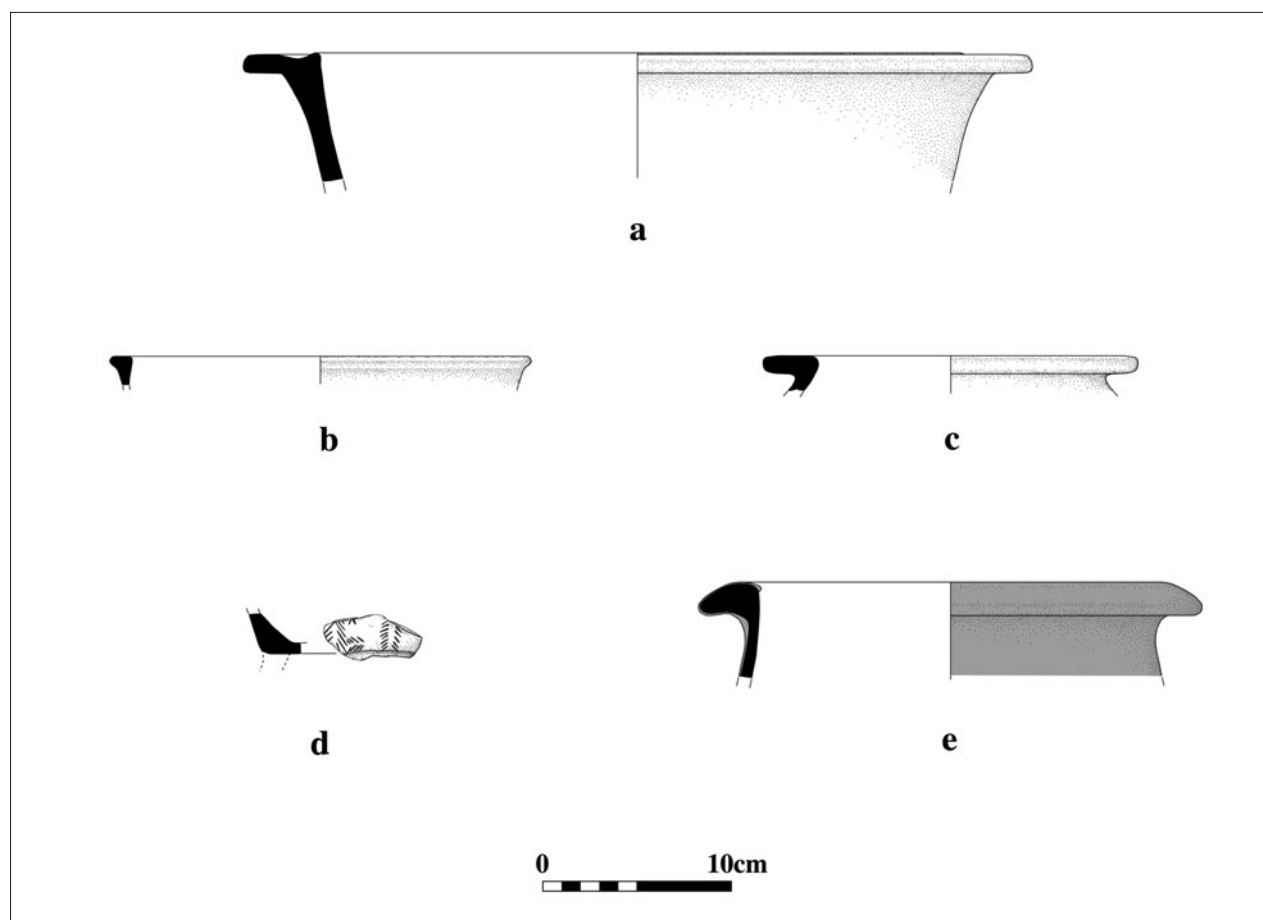


Fig. 49. Red Lustrous Wheel-made ware.

and above the IIIc floor surface in Room 37, and are thus in a context dating to Level IIIc–d. The fourth new form is an incised closed vessel with a foot that is broken (fig. 49d). The incised motifs are comparable to those used on the pilgrim flasks with stand (Eriksson 1993: 26–27, fig. 6; for the shape, compare fig. 39). The vessel is of fine pinkish-brown clay. This fragment was recovered in the fill below Surface 2 in Room 30, which also belongs to Level IIIc–d.

The ware categories of fine, medium and coarse which are specified respectively by C.K. Hansen and J.N. Postgate as wares a, b and c (Knappett petrographic group A) in relation to the material from the 1994–1998 excavations (Hansen, Postgate 2007a: 329–30; Knappett 2007: 257) were also detected in the recent excavations. An extraordinary example, which belongs to the new form of krater with everted flat rim (fig. 49e), yields evidence on the use of two different fabric groups of RLW-m ware together in one vessel. The krater is produced from ware b (= medium red) and coated with a layer of ware a (= fine red). The thickness of the fine-ware layer varies between ca 0.1–0.6cm. As far as can be understood from the 7.5% preserved rim fragment, the coating was applied on the exterior wall and on both sides of the everted rim. The coating is not applied on the interior. It is visible only in the section and at the part where the rim joins the interior wall. At this juncture, the coating was left like a ridge. This sherd was found in the fill below the IIId surface in Room 32 and thus belongs to Level IIIc–d. Another example of the combination of two different red fabrics in a single vessel is represented by the neck, handle and body fragments of a lentoid flask that were found on the surface of the mound. The body of the flask is made of gritty red clay, whereas the neck and the handle are of pure fine red clay (Collon 1995: 166–68, fig. 11:1; Hansen, Postgate 2007a: 339, fig. 238 no. 672).

A potmark that is so far unknown in the repertoire of RLW-m ware is recorded at the base of a handle that most probably belongs to a pilgrim flask (I19/766; fig. 50).

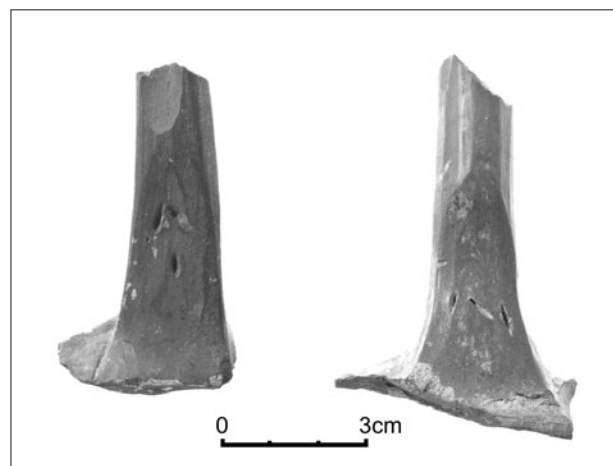


Fig. 50. Handles from lentoid flasks with potmarks.

Left: I19/766. Level IIIc–d, Room 37, unit 11108. Lentoid flask. Handle. Potmark on the lower part. Fine red clay (ware a). Burnished. Th. 1.43.

Right: I19/755. Level IIIc–d, Room 37, unit 11105. Lentoid flask. Handle. Potmark on the lower part. Fine red clay (ware a). Burnished. Th. 1.47.

Another handle of a lentoid flask with a potmark can be matched with potmark no. 24 in Eriksson's table (I19/755; fig. 50; Eriksson 1993: 146, figs 41–42). Both handles were found in the same fill as the first three kraters mentioned above (Level IIIc–d).

These new findings contradict two of Eriksson's conclusions about the high frequency of the ware and the representation of all forms in Cyprus. Furthermore, the discovery of a large number of RLW-m ware fragments in 2000 in the excavation of a small part of pool 1 at Boğazköy (Seeher 2001: 352–54) also emphasises the potential for new discoveries in Anatolia to alter previous thoughts on these issues through an increase in the amount of material. Thus, continued detailed studies prove themselves to be crucial in clarifying the origin and the role of RLW-m ware in eastern Mediterranean trade.

#### Catalogue to fig. 49

- a Level IIIc–d, Room 32, unit 11108. Jar. Rim to middle body. Gritty red clay (ware c). Slipped and burnished. Wheel-made. Di. 36; th. 1.15. (C11/115).
- b Level IIIc–d, Room 32, unit 11108. Jar. Rim with upper body. Fine red clay (ware a). Surface worn. Burnished. Wheel-made. Di. 20; th. 0.47. (C11/56).
- c Level IIIc–d, Room 37, unit 11115. Jar. Rim with upper body. Gritty red clay (ware c). Slipped and burnished. Wheel-made. Di. 14; th. 0.96. (C11/116).
- d Level IIIc–d, Room 30, unit 11318. Footed vessel (I20/662). Body fragment, possibly part of a base. Fine pinkish-brown clay (ware a). Burnished. Wheel-made. Th. 1.
- e Level IIIc–d, Room 32, unit 94039. Jar. Rim with upper body. Core is gritty red fabric (ware b) and the coating on the core is fine red fabric (ware a). Burnished. Wheel-made. Di. 20; th. 0.83. (C9/1294).



### 3.3. From the Late Bronze Age into the Iron Age (Christina Bouthillier)

3.3.1. *The northwestern area.* The original investigation of the Level II material focused predominantly on the northwestern area of the site where there was a sequence through from Level III, but the nature of the material and the stratigraphy in this area were not able to provide enough differentiation to construct a typological ceramic sequence (Postgate, Thomas 2007: 343). It has already been noted that in the earlier Level II material, some sherds are akin to the Level III material, which speaks towards a modicum of continuity despite increased variation in manufacturing techniques, shapes and decorative styles. This picture of continuity and development from the Late Bronze Age levels into Levels IIa–d has not been greatly altered by the recent excavations.

In 2008 excavations were carried out south of the Western Courtyard, exposing Iron Age deposits concurrent with IIe and II<sub>f</sub>. Frequent pits and animal burrows combined with a much thinner depth of soil (compared to the Central Strip) made stratigraphic differentiation of the Iron Age levels difficult in this area. However, the exca-

vations did turn up a variety of singular pots and sherds of interest due either to their relative completeness (such as fig. 51a–d and cooking pots such as fig. 51e, all from Level II<sub>f</sub>) or to their unique motifs (such as body sherds fig. 51f–i from IIe); from IIe came a unique jar with loosely done, ‘Kindergarten ware’-style cross-hatching across the body (fig. 51j). Unlike most of our potsherds, such larger portions of vessels cannot have strayed far from their proper stratigraphic context and may be assumed reliably to belong close in time to the occupation surfaces or fire installations over which they lay. Furthermore, despite the lack of a nuanced relative sequence in this area, these clear examples of style and shape are useful for clarifying changes in manufacturing and aesthetics that occur more broadly during this period; some of which may be particularly useful indicators of exchange networks and/or external influences.

3.3.2. *Central Strip Phases 15–7.* The lack of a diachronic sequence in the northwestern corner resulted in all Level II ceramics being discussed as a unit in the original publication (Postgate, Thomas 2007). The more recent excava-

#### *Catalogue to fig. 51*

- a I18/194: Level II<sub>f</sub> in square I18, unit 85012. Almost complete closed vessel. Cream-buff semi-fine fabric. Cream slip on exterior. Wheel-made. Base di. 9. (C8/95).
- b I18/209: Level II<sub>f</sub> in square I18, unit 85008. Almost complete White-Painted globular jug. Buff fine fabric. Cream-buff slip with matt-brown decoration on exterior. Wheel-made. Base di. 5.3; max. di. 13.3. (C10/3239).
- c Level II<sub>f</sub> in square I18, unit 85003. Complete bowl with plain rim and ring base. Buff semi-fine fabric. Plain surface. Wheel-made. Rim di. 22; base di. 8. (C10/3245).
- d Level II<sub>f</sub> in square I18, unit 85012. Complete bowl with tapered rim and slight disc base. Buff semi-fine fabric. Plain surface. Wheel-made. Rim di. 17.4; base di. 8. (C9/2023).
- e I18/290: Level II<sub>f</sub> in square I18, unit 85008. Upper portion of a cooking pot with an everted rim. Fabric has a grey core and red-brown edges, medium. Wheel-made. Oval handle section. Rim di. 24; max. di. ca 35. (C8/113).
- f Level IIe in square I18, unit 85053. Sherd with pendent semicircles and hatched triangle decoration. Red-brown fabric, medium coarse with frequent small limestone inclusions. Buff slipped exterior with matt black decoration. Wheel-made. (C8/365).
- g Level IIe in square I18, unit 85022. Sherd with matt-black cross-hatched triangle and matt-red wavy-line decoration. Kindergarten ware fabric (red, frequent small limestone inclusions and small pores). Wheel-made. (C9/2000).
- h Level IIe in square I18, unit 85022. Sherd with loosely executed matt-red cross-hatching decoration contained in a triangle. Buff fabric, semi-fine. Hand-made. (C9/2002).
- i Level IIe in square I18, unit 85029. Sherd with matt red-brown ‘butterfly’ triangles and ‘ladder’ edging decoration. Kindergarten ware fabric (red, frequent small limestone inclusions and small pores). Wheel-made. (C9/2016).
- j I18/287: Level IIe in square I18, unit 85045. Almost complete jar. Buff slipped exterior with matt-red loosely contained cross-hatching and zig-zag decoration. Buff fabric, semi-coarse. Grooved handle. Flat base. Wheel-made. Max. di. 18; base di. 8.7. (DC 08/13).
- k J14/502: Level 3 Room 98 in square J14, unit 11729. Complete pilgrim flask with stand (see fig. 39). Buff-brown fabric, semi-coarse. Fugitive solid red decoration on exterior, incised linear decoration on stand. Rim di. 7.1; max. di. ca 26.5; max. th. ca 14.5. For two other complete examples from Ugarit, see Schaeffer, Chenet 1949: 198–99, fig. 81; Courtois 1978: 260–62, fig. 21 (with mention of examples from Cyprus). (C11/4291).

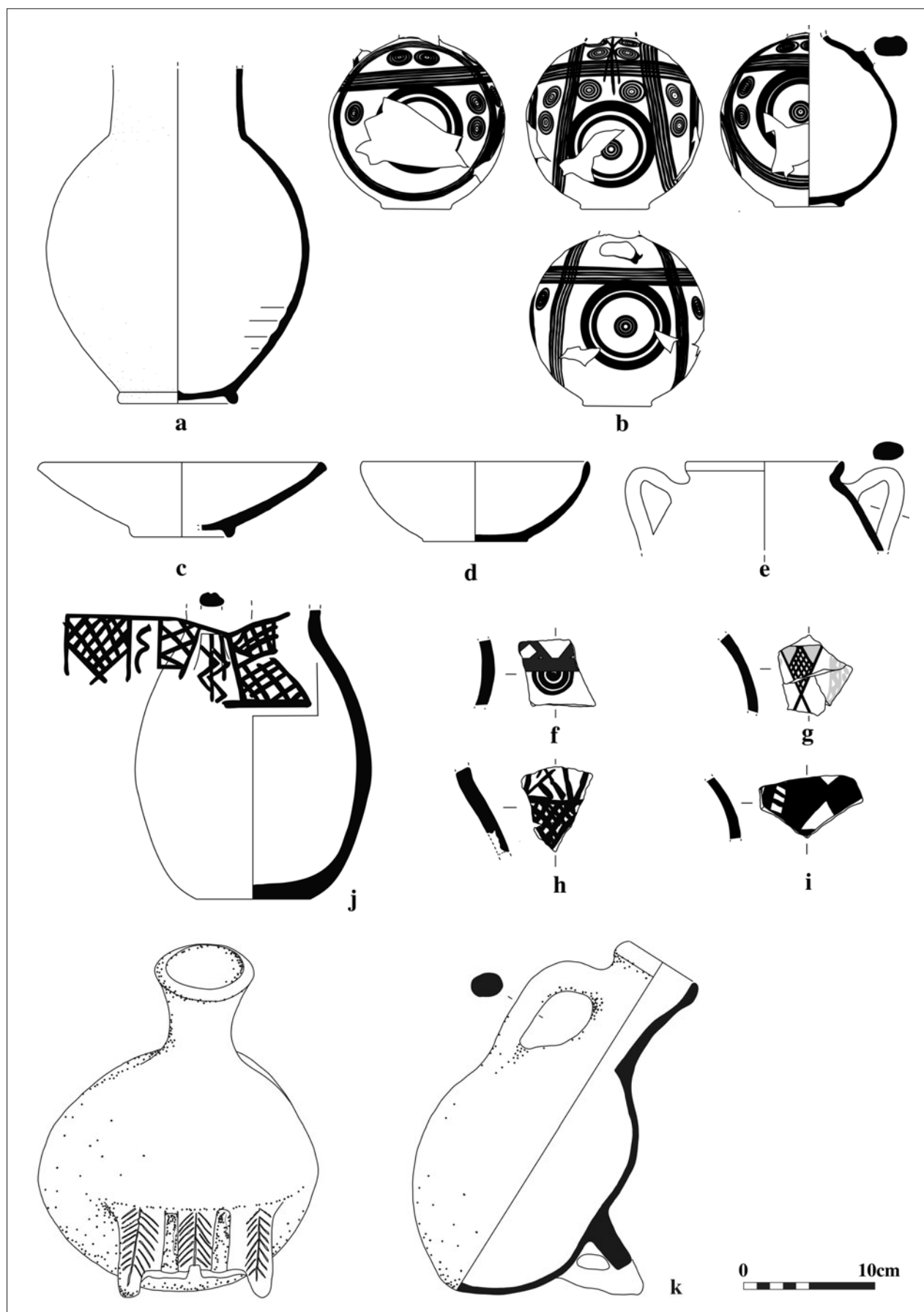


Fig. 51. Ceramics from I18 Level II (a–j) and J14 Level 3 (k).

tions responded to this problem by focusing the Iron Age excavations in the Central Strip, where the previous sounding in K14 indicated greater depth and better stratification. Work in this area extended the K14 sounding both horizontally into the surrounding squares and vertically into the 'Terminal Late Bronze Age' (TBA) phase. Despite the usual problematic pits and a distinct lack of architecture in this area, the general sequence of floors was relatively well stratified and allowed for a much better understanding of the material sequence.

The lowest point at which excavations ended in the 2011 season was the floor of Room 98 (Level 3) with associated finds that included a complete pilgrim flask with attached stand (figs 39 and 51k), a large trefoil-rim jar (figs 38 and 52a) and a storage vessel base (fig. 52b). Although this phase was called Level 3 in the excavation of I14 (Postgate, Thomas 2007: 173), this lowest surface is more likely to be chronologically similar to the Stele Building phases IIa/b. Further differentiation within the TBA phases in the Central Strip is difficult to determine due to the unequal, much smaller amount of area excavated from

Phase 8 and below, compared to Phase 7 and above; only a handful of sherds was excavated from each of these phases compared to over 100 (and up to almost 1,700) sherds in most others. However, stratigraphically, Phases 7 and below may be grouped together since they all belong with the single architectural Level 3 in squares I/J14, providing for a more robust combined dataset of the TBA ceramics. This single building phase with multiple exterior 'surfaces' also suggests that the northwestern corner divisions of IIa–d should not be expected to correlate directly with the phasing in the Central Strip.

In the previous excavations, one of the primary changes in the ceramic repertoire from Level III to Level IIa–d was the inclusion of ceramics decorated with simple red geometric designs (including cross-hatching, hatching, horizontal bands which were often left to 'drip' and stripes or 'blobs' on the upper faces of rims). One of the most characteristic examples of this type is the square-rimmed jar, often with broad cross-hatching on the exterior and dashes on the upper rim face. Other more specific examples in the same vein include bowls with hatched or

*Catalogue to fig. 52*

- a J14/505+527: Level 3, Room 98 in square J14, unit 11727. Almost complete trefoil-rim jar (see fig. 38). Buff fabric, semi-coarse. Smooth brownish slipped exterior. Coil-made? Base di. ca 6. (C11/4312).
- b Level 3, floor of Room 98 in square J14, unit 11722. Chunky storage vessel base with impressed thumbprints. Buff core with buff-pink edges, medium fabric. Flat base. Hand-made. Base di. 19.5–20. (C11/4314).
- c Phase 6b in square J14, unit 11095. Square-rim jar. Buff slipped exterior with thick red banding and drippy red decoration. Buff semi-fine fabric. Slight concave groove on everted squared rim. Wheel-made. Rim di. 25. (C11/4205).
- d Surfaces 3–4 in square J14, unit 11033. Bowl with red cross-hatched band decoration. Buff fabric, semi-fine. Plain rim. Wheel-made. Rim di. 16. (C11/4069).
- e Surface 3 in square J14, unit 11067. Bowl with red cross-hatched band decoration. Buff fabric, semi-fine. Rounded rim. Wheel-made. Rim di. 17. (C11/4157).
- f Surface 5b–c in square J14, unit 11071. Bowl with red hatched band decoration. Buff fabric, semi-fine. Slightly thickened rim. Wheel-made. Rim di. 23. (C11/4160).
- g Surface 5d in square J14, unit 11086. Bowl with red hatched band decoration. Buff-brown fabric, semi-fine. Flattened and thickened rim. Wheel-made. Rim di. 20. (C11/4188).
- h Phase 11 in square K14, unit 92053. Bowl with concave grooved rim. Buff fabric, semi-fine. Buff slipped interior, very fugitive red on exterior. Wheel-made. Rim di. 27. (C10/3281).
- i Level IIb in square H19, unit 83045. Bowl with grooved rim and red stripe/blob decoration on upper rim face. Buff-brown fabric, semi-fine. Wheel-made. (C10/3328).
- j Surface 6a in square K14, unit 92446. Bowl with flattened rim and red decoration: band on upper rim face, thick diagonal 'drip' and 'blob'. Buff fabric, semi-fine. Wheel-made. (C9/2173).
- k Surface 6a in square K14, unit 92446. Bowl with flattened rim and red decoration: band on upper rim face, thick diagonal 'drip' and 'slash'. Very light buff fabric, semi-fine. Wheel-made. Rim di. 21. (C9/2174).
- l Level 2f in square L14, unit 93011. Bowl with flattened rim and red decoration including a rough 'blob' and three thin scratch marks. Buff fabric, semi-fine. Wheel-made. (C10/3107).
- m J14/438: Surface 5a–b in square J14, unit 11083. Complete small, irregular jar. Pink fabric, fine. Buff-pink slipped exterior. Hand-made. Max. di. 7. (C11/4318).
- n Surface 2–3 in square K14, unit 75045. Upper portion of a Kindergarten ware jar with loosely-executed matt-red decoration including fringed horizontal bands and cross-hatching. Pink-cream fabric, medium with dense small white inclusions and frequent small to large voids. Hand-made. Rim di. 19. (C7/1089).

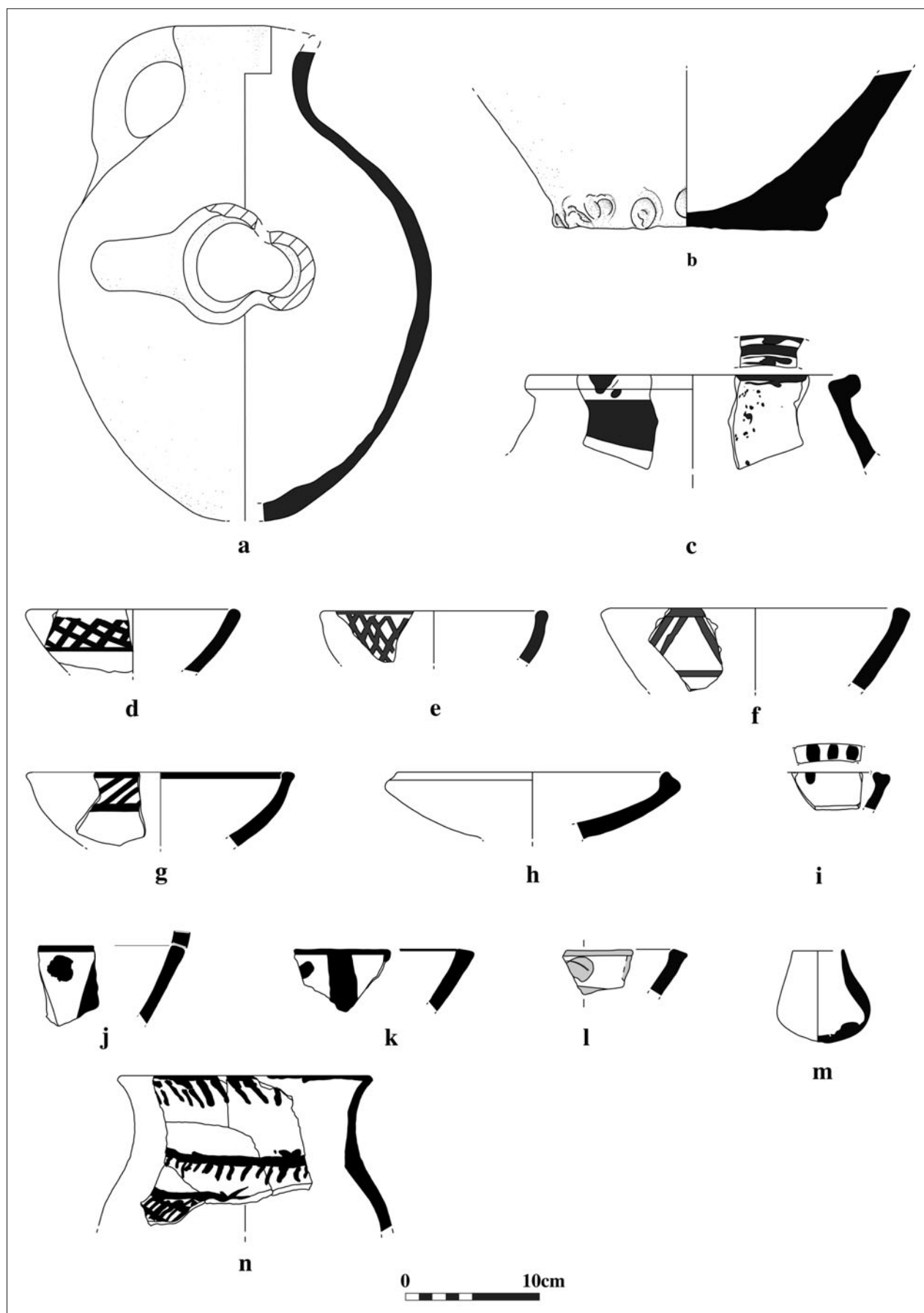


Fig. 52. Ceramics from the Central Strip (except fig. 52i from H19).

cross-hatched bands below the rim. At present, this style of vessel appears to be paralleled only at Mersin (Ünlü 2005) and Tarsus (Sevin, Caneva 2004), suggesting to us that it may accurately and conveniently be termed Cilician Red-Painted (CRP) ware.

In Postgate, Thomas 2007, square-rimmed vessels (called ‘jars’ predominantly, but also ‘basins’) are said to ‘make their first appearance in Level II’, with the better stratified examples coming from Ila/b of the Western Courtyard (Postgate, Thomas 2007: 344–45). In the Central Strip, although jars with squared rims appear earlier, it is in Phase 6 that they are most predominant (for example fig. 52c). Similarly, the cross-hatched banded bowls from the previous excavations were found in Level Ila (Postgate, Thomas 2007: 345, no. 752), but the earliest examples of this type from the Central Strip (fig. 52d–e) have come from pits associated with Surface 3 and are therefore much later than the Ila examples. The hatched banded bowls have been attributed to IIc and above (Postgate, Thomas 2007: 345, nos 757–71), and were thus considered a later development. The more recent finds of this type in the Central Strip came predominantly from the group of surfaces in Phase 5 (fig. 52f–g). Therefore, the relative sequence of these specific types in the Central Strip does not correlate to that which was initially proposed. However, for each of these decorative motifs fewer examples were found in the recent excavations than in the 1990s, particularly with regards to the cross-hatched banded bowls. It is possible that this disparity in numbers is a reflection of a difference in social context between the northwestern corner and the Central Strip and is masking our ability to understand the nuanced development of the CRP ware.

Another feature of bowls that was identified in Postgate, Thomas 2007 as a marker of the change from Level III to Level II was the appearance of a ‘grooved’ rim on the internal rim of bowls (Postgate, Thomas 2007: 344; see section 3.1). In the most recent excavations, grooved rims are first found in Phase 11 (fig. 52h), two of which have red ‘blobs’ or stripes on the rim (such as in fig. 52i). This decoration is not particularly common (the favoured decoration remains a solid red wash or slip), but, much like the square-rimmed jars, the development of this rim shape appears to occur in tandem with the CRP decorative style. Grooved-rim bowls are found at the start of the Central Strip sequence, which supports the idea that this type of rim developed at the start of the TBA levels and continued to develop throughout Level 2 with the introduction of further ‘grooved’ types (which will be discussed below).

**3.3.3. Central Strip Phase 6.** Level IId in the Stele Building was recognised in Postgate, Thomas 2007 as the final phase of the Late Bronze Age, which was roughly datable due to the Mycenaean LHIIIC-style ceramics

found in the IId destruction (Postgate, Thomas 2007: 373–76). The Central Strip excavations have not unearthed any well-stratified Mycenaean ceramics to aid in establishing the point of transition between this Terminal Late Bronze Age (TBA) and the Early Iron Age levels. Stratigraphically the change from the TBA to the Early Iron Age appears to occur with the new building phase in I14, which is linked to the Phase 5 series of surfaces. This would place Phases 6a and 6b as roughly equivalent to the change from IId to IIE in the northwestern corner.

Ceramically, there are some noticeable changes in the repertoire that occur in Phase 6. In particular, the overall corpus of bowls appears to become less shallow on average than in Phases 15–7 and the rims of bowls become less standardised; for example, at Phase 6 we see a large increase in rims that combine a flattened edge and a thickening of the rim inwards and/or outwards, so much so that bowls with this combination are most prominent in these levels. Within this group a type of flattened rim bowl has been identified as characteristic of this phase; it is made predominantly out of the typical buff fabric but with noticeably round, pebble-like inclusions. These bowls are often decorated with thick red vertical or diagonal lines, sometimes in conjunction with circular ‘blobs’ placed in various positions on the body (such as fig. 52j), and often have red-painted bands around the rim (such as in fig. 52k). Curiously, many of these pieces have paint on the break edges and, furthermore, some of the break edges do not appear to be accidental. It is from within this group that a series of seemingly random markings were identified – markings which include scratches or cut marks, incisions and indents, some done before firing, some afterwards, but most of which have paint inside the markings which may suggest that they were intentional (such as in fig. 52l). It could be that these sherds were being used as ‘practice’ pieces for new manufacturing techniques, but, regardless of what the intention behind these vessels was, they seem to be evidence of a transitional ceramic type; they combine elements of the previous style – i.e. the decoration is essentially a ‘drip’ that has been painted on with a thick stroke – but move towards the more sketchily-applied decoration that will follow in Phase 5 and above.

**3.3.4. Central Strip Phases 5–1.** Phase 5, with its Surfaces 5a–e, represents the start of the Iron Age and should roughly correspond to the earlier phases of Level IIE in the northwestern corner. Apart from one irregular, small, closed vessel (fig. 52m), the majority of the repertoire consists of small sherds, but much of what we find in IIE can be found in earlier or later levels and most of the rim forms have parallels in, or similarities to, the Level Ila/d material or even the Level III Late Bronze Age vessels. It has been one of our aims to try to understand better the

development of shapes throughout IIe in an attempt to gain a picture of the continuity or discontinuity of this period. Many of the changes that are seen are therefore related to general trends rather than the development of specific shapes or manufacturing techniques. With Phase 5, for example, we see a drastic increase in the variety of fabrics (or their macroscopic appearance), rim shapes and decorative motifs. This wide range of variation results in a number of sherds that do not fall into readily definable groupings and makes developing a typological sequence more difficult. For brevity, the focus here will remain on the dominant ware groups and on further developing or clarifying possible ceramic indicators that were previously suggested in Postgate, Thomas 2007.

Level IIe was previously characterised ceramically by the emergence of Kindergarten ware – a hand-made, loosely decorated type of ware that, though specific to Kilise Tepe, follows a more widespread early Iron Age trend towards hand-made vessels. The fabric of this ware is local, particularly distinctive visually and petrographically, has no equivalent in the earlier phases (see Knappett 2007) and has not yet been identified at other sites in the area. The Kindergarten ware is the only noticeably cohesive ware group of local manufacture that can be defined in terms of changes to fabric, decoration and manufacturing techniques after the end of the TBA levels, and appears to expand upon the style of the CRP ware in the use of predominantly simple, red-painted, geometric motifs (as in fig. 52n).

The earliest examples of Kindergarten ware from the Central Strip come from a pit associated with Surface 5a, from which six Kindergarten ware sherds were uncovered. No Kindergarten ware sherds were found in the earlier surfaces of Phase 5, suggesting that the ware did not develop immediately at the start of the Iron Age. Instead, the earliest Iron Age levels continue to utilise the CRP decorative style, though some hints at development can be seen within the limited Phase 5 repertoire; i.e. the lower surfaces appear to maintain a similar decorative repertoire to the TBA levels with drips, cross-hatching, hatching and simple banding motifs, while from Surface 5b the number of motif-decorated pieces increases and the variation in motifs begins to increase. For example, at Surface 5b we see the first sherds decorated with cross-hatching contained in a triangle rather than as a band or covering a large section of the body.

This later development and the addition of Kindergarten ware into the ceramic repertoire is indicative of a large degree of continuity from the TBA into the Early Iron Age despite the collapse of the Hittite empire. Furthermore, some of the trends that we are seeing within the later Iron Age surfaces also show continuity in the ceramics as the same general shapes are often seen throughout the

levels and/or rim forms are built upon and developed into different varieties. For example, a rim type that shows both continuity and development over time is the ‘grooved’ rim. Although this type of bowl is present in the earlier IIa–d levels (as noted above), it increases in proportion around Surface 4. The initial ‘grooved’ rims are essentially an internal-rim bowl, popular in Level III, that is either slightly concave on the outer face of the lip (fig. 53a) or has had clay added to the lip, creating an indent between the lip and the addition (fig. 53b). These types of ‘grooved’ rims are noticeably most frequent at the start of the Iron Age levels (i.e. in 2e/3 and 2e/4) and, although found in the later levels, appear to have declined in 2e/2. Instead, the ‘grooved’ rim found in the earlier levels is modified in 2e/2 to include purposefully incised grooves on the rims rather than creating the concavity through added clay or depressions (fig. 53c). The use of incised ‘grooves’ may have developed from the added clay type, where in some early examples the groove appears to be slightly enhanced through the use of a blunt or round-ended tool (fig. 53d). A change from this development is seen in 2f (i.e. on or above Surface 1) where, although all of these ‘grooved’ rim types are technically found in this level, the frequency is low enough to suggest that they could be remnants from the earlier phases rather than a popular contemporary manufactured type. Instead what we see is a distinct preference towards undecorated, simple plain or tapered bowl rims. This preference for simple rims is paralleled by the increase in plain, flattened bases and smaller ring bases.

A similar picture of continuity and development is suggested by a general overview of the fabrics used. With Phase 5 and the beginning of 2e we see the introduction of new fabric groups, such as the porous and gritty red fabric that defines the Kindergarten ware, and an increased range of fabric variation overall. Much as with the bowl rims, we can see this increasing variation as a continuous development up until 2f. Although the Level 2f fabrics are dominated by the same buff and red fabrics that are consistent throughout Level 2, it is difficult to be certain which fabrics are actually contemporary with 2f and which are the results of the frequent, large pits that are typical of this level’s stratigraphy. The trend of increasing variety within 2e stops at 2f, at which point the percentage of sherds in the standard local buff fabric increases again. The increasing preference for standardised, simply-shaped bowls is thus accompanied by standardisation of the fabric with which they were made.

Some of the most readily identifiable wares that become incorporated into the Kilise Tepe repertoire in the 2e/f levels are those that fall within what has been termed the Cypro-Levantine koine (Boardman 1999: 149) and are found at other sites in Cilicia and throughout the eastern Mediterranean – i.e. the White-Painted, Black-on-Red and

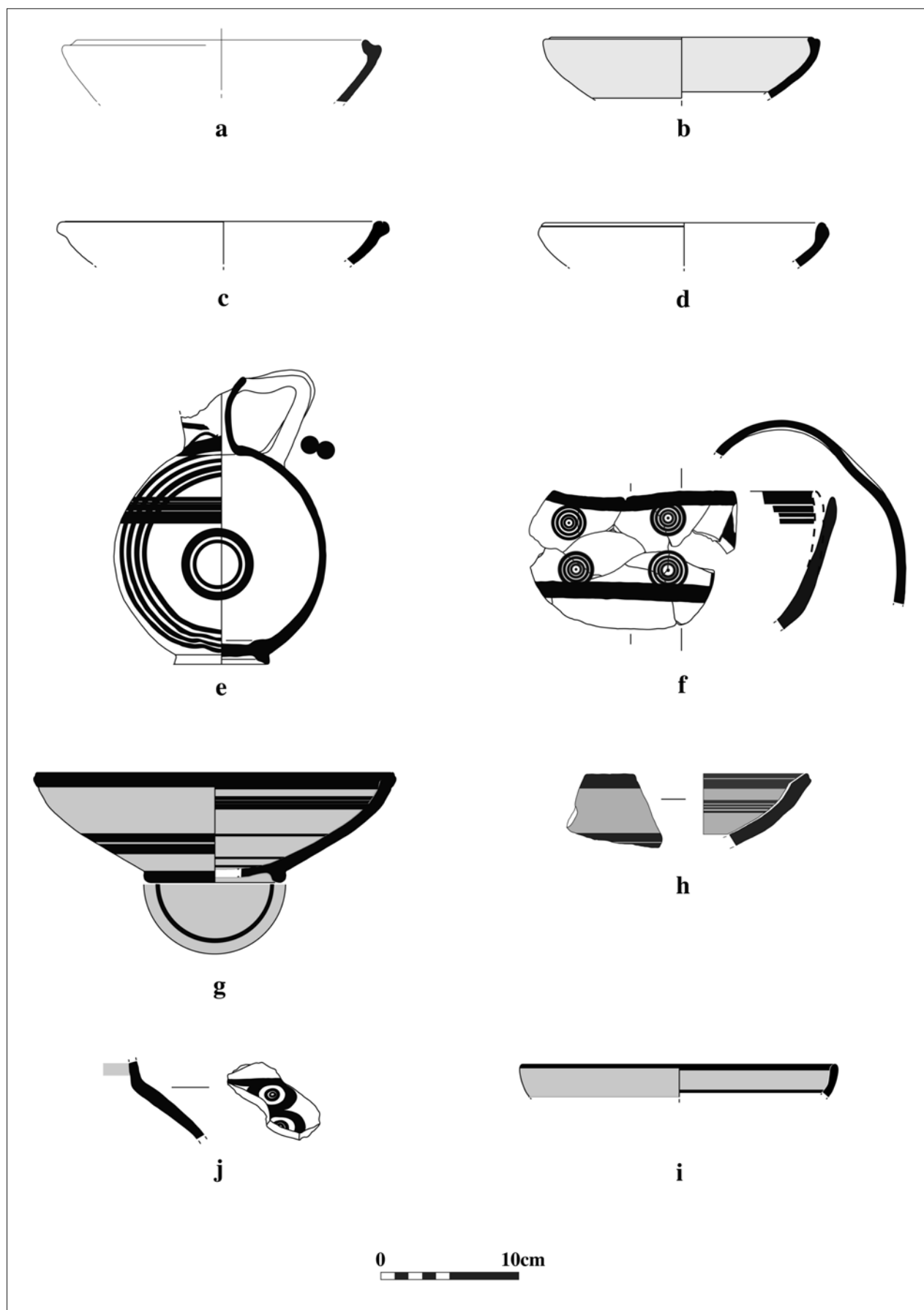


Fig. 53. Ceramics from the Central Strip.



Bichrome wares typically decorated with horizontal banding and/or concentric circles. While these three types are linked stylistically and often treated together, it is worth considering them individually as well.

The White-Painted wares are most frequent, and both the petrographic analysis and the find-spot of some of these vessels within a kiln identified during the excavations of the 1990s have shown that at least some of these pieces were manufactured at the site. In the recent excavations, two almost complete globular jugs have been found, one from I18 in the northwestern part of the mound, the other from Surface 1 in the Central Strip (K14). Both of these are slightly misshapen, which could suggest local manufacture (figs 51b and 53e). Also found was one of very few examples on the site of a White-Painted bowl (fig. 53f); the predominant shape in this style is the globular jug. The fabric of the bowl is unusually white, soft and fine, suggesting a possible non-local source. Contrary to this, however, is that it, too, appears to be misfired and misshapen – which would suggest a local production instead. If it is a misfired hemispherical bowl, it is unusual for being White-Painted ware rather than Black-on-Red, but would fit well into the later sixth century (Joanna Smith, personal communication) – a date that is quite a bit later than the majority of our pieces, which are White-Painted IV (traditionally dated to ca 750–650 BC).

The local manufacture of many of the White-Painted wares is in contrast to the perception that all the Black-on-Red pieces from the initial excavations were imported. There are, however, now a few Black-on-Red sherds that appear macroscopically to fit with the local buff fabric and may therefore be locally produced (fig. 53g–h) – if not at Kilise Tepe specifically then perhaps elsewhere in Cilicia; Tarsus and Kinet Höyük have both been shown to have produced Black-on-Red vessels (Hanfmann 1963: 24, 26, 50; Hodos et al. 2005: 79). Further petrographic analysis of the clay should help to resolve this question in the near future. These pieces are also distinctive both through their shape as bowls with external rims and in the quality of their paint: both colours are matt and the red is a deeper crimson compared to the often lustrous reds and orange-reds also found. This characteristic is paralleled somewhat by the locally-produced Tarsus Black-on-Red as described by Hanfmann (1963: 50), though the black paint is also matt as opposed to the lustrous nature of the local Tarsus Black-on-Red and there is no grey core that is often found there.

In general, the corpus of Black-on-Red vessels at Kilise Tepe has been greatly expanded since the initial publication of only five sherds, showing that there is not only a significant range of fabrics but also a broad spectrum of decorative and manufacturing quality. The range of shapes has also been increased, and includes both open and closed

#### *Catalogue to fig. 53*

- a Phase 4–5 in square K14, unit 82031. Bowl with internal rim and concave groove. Brown-red fabric, fine. Matt-red solid decoration interior and exterior. Wheel-made. Rim di. 23. (C8/262).
- b Phase 4–5 in square L14, unit 93040. Internal rim bowl with groove created by addition of clay to interior. Brown-red fabric, semi-fine. Matt-red solid decoration interior and exterior. Wheel-made. Rim di. 20. (C10/3175).
- c Level 2f in square K14, unit 82025. Bowl with incised groove on rim. Buff fabric, semi-fine. Buff slipped interior with red-brown solid decoration on exterior. Wheel-made. Rim di. ca 24. (C8/309).
- d Level 3 in square J14, unit 11727. Bowl with incised groove on rim. Light buff fabric, semi-coarse. Plain surface. Wheel-made. Rim di. 21. (C11/4263).
- e K14/489: Surface 1 (= Level 2f) in square K14, unit 82005. Almost complete White-Painted globular jug. Pinkish-buff fabric, semi-fine. Light-cream slipped exterior with brown-painted decoration. Ring base. Wheel-made. Base di. 6.8; max. di. 15.3. (DC 08/4).
- f K14/1022: Surface 1 (= Level 2f) in square K14, unit 75037. White-Painted hemispherical bowl. Very soft cream-buff fabric, very fine. Black-painted decoration. Slightly tapered rim. Wheel-made. Max. rim di. 19 (irregular). (C10/3076).
- g K14/1021: Level 2f in square K14, unit 75037. Possible locally-manufactured Black-on-Red bowl. Buff fabric, semi-coarse. Matt red with black horizontal line decoration. Rim slightly grooved, flattened and everted. Ring base. Wheel-made. Rim di. 26; base di. 10. (C7/1006).
- h Surface 2–3 in square K14, unit 75051. Possible locally-manufactured Black-on-Red bowl fragment. Buff fabric, semi-coarse. Matt red with black horizontal line decoration. Rim slightly flattened and everted. Wheel-made. (C8/75).
- i Surface 4–5 in square J14, unit 11050. Black-on-Red shallow bowl rim sherd. Buff-brown with reddish edges, semi-fine fabric. Red with black horizontal banding decoration. Wheel-made. (C11/4096).
- j Surface 4 in square K14, unit 75074. Bichrome jar sherd. Orange-brown fabric, frequent small inclusions. Red matt band on interior of neck, reddish-brown slightly lustrous exterior with black concentric circle decoration. Wheel-made. (C8/47).

vessels, with bowls being the most common and representing over 60% of the Black-on-Red sherds. If we consider that a relatively recent survey of the Black-on-Red ceramics in the Mediterranean included only two bowl sherds from all of Cilicia (i.e. Tarsus and Kinet Höyük; Schreiber 2003: 34, 318, 320), the inclusion of a further 28 bowl fragments (most of which are likely to have been imported) greatly changes the distribution of this shape which was thought to be relatively limited to a narrow geographical region in the southern Levant and to Cyprus itself (Schreiber 2003: 33–34). Moreover, despite the idea that locally-produced Cilician Black-on-Red wares are not ‘true’ Black-on-Red (Schreiber 2003: 277–80), it can be argued that the variety of imported and possible local Black-on-Red pieces present at Kilise Tepe warrants more of a place in the discussion of the broader Mediterranean Black-on-Red repertoire.

The new excavations have also expanded the stratigraphic and chronological depth of when the Black-on-Red style appears at the site; the previously published sherds all came from IIf and above, but in the recent excavations the first sherd of this ware (a shallow bowl rim, fig. 54i) was found between Surfaces 4 and 5a, placing the introduction of this ware very near the start of Level 2e. Another early example of Cypro-Cilician wares is a Bichrome jar with target decoration from on Surface 4 (fig. 53j). Although the sherds from around Surface 4 and below are few, a further 20 sherds from Surfaces 4–3 show a slow increase in the popularity of this style. This pushes the start of this ceramic style at Kilise Tepe back into Level 2e, with Surface 2 having the largest percentage of Cypro-Cilician sherds overall.

The popularity of the Cypro-Cilician ware at Surface 2 means that it is no longer primarily indicative of 2f/Surface 1. Unexpectedly, Surface 2 is also where the Kindergarten ware is at its most prominent. Both of these ware types are introduced in small numbers around the end of the Phase 5 surfaces and gradually increase in popularity until their predominance at Surface 2, and both then decline with Level 2f (although the Kindergarten ware declines more significantly than the Cypro-Cilician ware). As these two types of ceramics are assumed to represent two different socio-economic situations, the implications of how they fall in the sequence relative to each other is of particular interest.

It must be mentioned that although ceramics of Cypro-Cilician style are found earlier, it is only at Surface 2 that the stereotypical target ware White-Painted and Bichrome globular jugs are present in force. Many of the earlier examples of the Cypro-Cilician-style wares, though they may incorporate the concentric circle decoration or the typical banding, do not give the same feel as the very standardised later pieces. Although Level 2f favours an undec-

orated, simple style, it appears that the manufacture and use of the Cypro-Cilician style pieces does continue in slightly smaller quantities. The Kindergarten ware, on the other hand, appears to develop its stereotypical style and form earlier in the sequence, with Surface 2 as a high point. So although these two types are likely being made and used simultaneously, there is the impression that the Kindergarten ware does represent an earlier stylistic, highly-decorative concept with the Cypro-Cilician ware being used concurrently, but also providing continuity into the later Iron Age Level 2f where more simple, standardised vessels were preferred. A comparable shift towards undecorated pottery in the Later Iron Age has also been noted at Kinet Höyük; there it has been attributed to the expansion of the Neo-Assyrian empire, but that can hardly apply literally to conditions at Kilise Tepe (Gates 2003: 285; Hodos et al. 2005: 65).

*3.3.5. Summary.* Overall, the renewed excavations at Kilise Tepe have greatly expanded the corpus of stratified ceramic material from which to develop a relative sequence. The TBA levels in the Central Strip have not provided enough material to evidence a more nuanced perception of change in this period, but it provides a link to the Early Iron Age levels of Phase 5. This sequence from the TBA to the Early Iron Age shows a great degree of continuity in the material record despite increasing changes in fabric, decorative motifs and vessel shapes. Throughout the sequence, the local buff fabric is maintained in the most prominent amounts and in a very similar form and, although changes occur, this provides an underlying sense of continuity.

The introduction of the Kindergarten ware and the very beginnings of the Cypro-Cilician style at the end of Phase 5 may be concurrent developments that are linked to a reoccupation of the site after a period of abandonment or less permanent occupation that may be suggested by the radiocarbon results. The Kindergarten ware, despite the impression of it as a type of ‘default’ ware caused by the disintegration of large-scale manufacturing and skilled workmanship, is found most predominantly in closed jar shapes – including both storage vessels and smaller pieces. This suggests that it was maintained and developed for a specific purpose during this period, gaining in popularity from its introduction until Surface 2, but continuing into the latest Iron Age phase of 2f predominantly in storage vessel form.

The slow inclusion of Cypro-Cilician wares into the ceramic repertoire also presents a picture of specific community choices. The trend for the local manufacture and importation of White-Painted globular jugs, compared to predominantly imported Black-on-Red bowls, suggests that, like the Kindergarten wares, these wares were linked

to specific uses. The decline, but maintenance, of the Cypro-Cilician style from its height at Surface 2 into Surface 1 provides a vital link in the material sequence between the two levels in the face of a rather drastic shift in the overall patterns that occurs at this point. The increasing variation that has been seen from Phase 5 up to Surface 2 changes rather abruptly to a distinct preference for undecorated, simple, buff-fabric vessels. This is most predominantly noticeable in the increase in plain and tapered bowl rims.

The changes in the overall sequence and interplay of the Cilician Red-Painted, Kindergarten, Cypro-Cilician, and the later simple buff wares all add up to a very different perception of the cross-cultural interactions that occurred across the Iron Age at Kilise Tepe. The development of a more detailed and stratified ceramic sequence is paving the way for a better understanding of the community-based developments and choices that are often overshadowed by the actions of the wider political, economic and cultural powers that surrounded it.

#### **4. General conclusions**

Our second spell of work at Kilise Tepe has enlarged our understanding of the two buildings at the northwestern corner, sharpened our perception of the period elapsing between the end of the Bronze Age and the Classical world, and helped to narrow down the dating of the stages observed. On the other hand, it has reinforced some of our imprecisions, leaving some of our previous uncertainties unresolved, not least with respect to the locally-produced ceramic traditions.

Given the steep promontory on which the mound rests and the more than 6m of Early and Middle Bronze Age occupation strata, on top of which the Late Bronze Age architects built their settlement, it is hardly surprising that the site was chosen as the seat of local administration, hinted at by the presence of five stamp seals in Level II and one recovered from Level III. The symbolic use of artefacts in various architectural contexts suggests that both the North-West Building and the Stele Building which succeeded it here received special attention, and this tends to strengthen the conclusion that this part of the site accommodated the local political authorities during the 14th century when for historical reasons we expect this area to have been under some form of Hittite control. Whether the same applies to the years when the Stele Building was the principal establishment here, or political control was devolved to the kingdom of Tarhuntassa for some of the time, is now an open question: in any case the evidence of the <sup>14</sup>C dates from the initial construction of the Stele Building strongly suggest that this preceded the establishment of the semi-independent Tarhuntassa kingdom, so that the material changes in architecture and ceramics cannot

be directly associated with that event, as has previously been proposed. Since the 1990s, it has also become apparent that the ceramic style we have now called Cilician Red-Painted ware (see section 3.3.2) is not confined to the Göksu valley, but is present (though perhaps not in large quantities) on the Cilician plain, with attestations at Mersin and Tarsus. Since Tarsus by any reckoning belonged to Kizzuwatna (rather than Tarhuntassa), any attempt to associate changes in the Kilise Tepe Level II ceramics with political or social history will need to take account of developments in both regions. In this context it is worth reiterating that the nearest thing we have to a fixed date for the Stele Building is the occurrence of LHIIIC Mycenaean-type vessels broadly dating between 1200 and 1150 BC on the floor of Phase IId rooms, which strongly suggests that the Stele Building lasted throughout the 13th century in its IIc and probably also part of its IIa/b lifetime.

Both Phase IIc and, not very much later, Phase IId were destroyed by fire, and about the same time the Late Bronze Age building in the Central Strip was abandoned, sealed with a layer of packing and the architectural layout of this part of the settlement was completely reorganised. The most spectacular component was the double ring of postholes in Phase 6c which seems to imply a wooden structure of about 8m diameter (with space around it). Whatever the role of this structure, the use of space at this time has radically changed from the Late Bronze Age domestic scene. In Level 3 of the Central Strip the work in J14 and K14 revealed how a single architectural phase of a solidly-built house to the west survived unchanged while to the east a closely-packed succession of occupation strata built up in an open space which hosted fire installations and storage pits. This echoed the build-up of finely striated deposits in the Western Courtyard outside the Stele Building in Phase IIa–c, as well as Surface 5a–e in the early Iron Age phases of the Central Strip, and led to the observation that open space adjacent to a building can belong to a single architectural entity even if it was not formally an enclosed courtyard, and suggested the term ‘forecourt’ to express this concept.

Certainly different from such domestic forecourts were Surface 4, the very similar Surface 3 and probably one or more surfaces above this. These were not associated with any architecture or even with any certain storage pits or fire installations. Yet Surfaces 3 and 4 at least appear to have been prepared and curated clay surfaces; whether the pockmarks derive from some sort of vegetation remains a question which is as yet unresolved. Whether we should see Surfaces 2–4 as representing a break in occupation of the whole site is equally hard to resolve: our feeling, bolstered by apparent continuities in the ceramic repertoire, is that occupation was continuous at the site, even if not in this part of it; but this is, of course, impossible to prove.

Finally, in the later Iron Age, the fire installations associated with Surface 1 in the Central Strip indicate that this part of the tepe was reinhabited. The two large near-contemporary storage facilities hint at the strategic value of a defended space, and this tends to support the suspicion that the fortification wall (W300) exposed on the eastern side of the mound would have dated back at least to the eighth or seventh century BC (see Postgate, Thomas 2007: 32). As already observed, this is not unexpected given the picture of conditions in Plain and Rough Cilicia conveyed to us by the annals of the Assyrian kings of the eighth and seventh centuries BC.

Political conditions, even when they cannot be described in precise detail, must have affected the material record, of which the ceramics are of course the most sensitive. During the Late Bronze Age some similarities with the ceramics of the Hittite heartland indicate at least a cultural orientation to the north, while the wealth of Red Lustrous Wheel-made ware must reflect something rather specific in terms of connections to the metropolitan area, perhaps not unconnected with the port of Ura, which was certainly under some form of control from Hattusa. Later, in the seventh century but also earlier, the imported (and similar locally-produced) decorated wares attest links with the eastern Mediterranean, and there are no hints of relationship to the ceramics of the Anatolian plateau at this point in time.

Changes in economic activity were also palpably present, most obviously in the zoo-archaeological record. Almost any pattern in the osteological analysis is susceptible of multiple interpretations, but since differences between Level III and the previous and following occupations coincide with the time during which the ceramic orientation is towards the north, it is not unreasonable to ask if they reflect the impact of an external administrative cadre: increase of cattle at the expense of pig might be a cultural dietary preference or could point to increased cereal cultivation requiring plough oxen. The high proportion of goats versus sheep in Level III is reminiscent of Cilicia's reputation for goat-hair in Classical times and prompts the question of whether they were being bred to supply a demand for specialist artefacts (such as tents). Fresh detail will become available once the study of the 2011 season is completed, but our zoo-osteological record is unique for the region at present so that we have no comparative yardstick, and evidence from other sites is obviously desirable on the changing subsistence strategies, not least at neighbouring Çingentepe.

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